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WILLIAMS

THE

NATURAL AND CIVIL

HISTORY

OF

VERMONT.

BY SAMUEL WILLIAMS, LL. D.
MEMBER OF THE METEOROLOGICAL SOCIETY IN GERMANY, OF THE PHILOSOPHICAL SOCIETY IN PHILADELPHIA, AND OF THE ACADEMY OF ARTS AND SCIENCES IN MASSACHUSETTS.

IN TWO VOLUMES.

VOLUME I.

THE SECOND EDITION, CORRECTED AND MUCH ENLARGED.

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1809.

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TO THE CITIZENS OF THE STATE OF

VERMONT,

THE FOLLOWING OBSERVATIONS

ON THEIR

NATURAL AND CIVIL

HISTORY,

ARE HUMBLY INSCRIBED;
AS A TESTIMONY OF RESPECT FOR THEIR
MANY VIRTUES,
AS AN ATTEMPT TO PROMOTE
A MORE PARTICULAR ACQUAINTANCE
WITH THEIR OWN AFFAIRS,
AND WITH THE MOST ARDENT WISHES FOR
THEIR FURTHER IMPROVEMENT
AND PROSPERITY,
BY THEIR OBEDIENT
AND HUMBLE
SERVANT,

THE AUTHOR

Rutland, July 16, 1794.

PREFACE.

THREE centuries have passed away since America was first discovered by Columbus. From that time until now, the affairs of America have engaged the attention of historians and philosophers. The natural productions of this continent, have been one object of general inquiry. Among the Spanish writers, there are some good essays on the natural history of the southern parts of America. In Canada, some of the physicians and Jesuits were attentive to the natural productions of that part of the continent; and have left some valuable pieces on the natural history of New France. This kind of knowledge was not much attended to, by the first settlers of the British colonies; and we have but few of their ancient writings, in which it was contemplated at all. Obliged to depend upon transient and partial accounts, the best writer upon natural history, M. de Buffon, has fallen into many mistakes respecting the natural productions of America, which, more accurate observations would have corrected. The subject instead of being fully explored, is yet a treasure but little examined.

The Man of America was an object still more curious and important. But the age in which the first discoveries and settlements were made, was not enough enlightened, to afford either accurate or impartial observations, on the manners, customs, language, abilities, or state of society, among the Indians. Prejudiced by their sordid

manners, and enraged by their barbarities, the men of Europe never looked for any thing good in such men: And while interest and revenge joined to destroy that unhappy race, but few were able to consider their customs or rights with calmness, or dared to say any thing in their favor. It is not more than half a century, since this subject has been properly attended to by philosophers: And their conclusions have been of the most opposite and contrary kinds. Some have with great zeal advanced, that the perfection of man was to be found in the savage state; while others have as warmly contended, that this was the lowest state of degradation and abasement, to which the human race can possibly be reduced. Such opposite and contrary systems make it necessary to examine this part of the natural history of man, with great care and impartiality; that we may distinguish what was valuable in that stage of society, and what was disadvantageous and degrading.

An object of still higher magnitude and importance, has been presented to our view by the American Revolution. The first settlers in the British colonies were left in a great measure by their sovereigns, to take care of themselves. The only situation which they could take, while they were clearing the woods and forming their settlements, was that of equality, industry, and economy. In such a situation every thing tended to produce, and to establish the spirit of freedom. Their employments, customs, manners, and habits; their wants, dangers, and interests, were nearly the same; these, with every other circumstance in their situation, operated

with a steady and certain tendency, to preserve that equality and freedom, which nature had made. This spirit of freedom was in some degree checked by the customary interpositions of royal authority: But these were too irregular and contradictory, to become matters of veneration, to alter the natural feelings of men, or to change the natural course and tendency of things: And while the ministers of kings were looking into their laws and records, to decide what should be the rights of men in the colonies, nature was establishing a system of freedom in America, which they could neither comprehend or discern. The American Revolution explained the business to the world, and served to confirm what nature and society had before produced.

HAVING assumed their rank among the nations of the earth, the states of America now present to the world a new state of society; founded on principles, containing arrangements, and producing effects, not visible in any nation before. The uncommon and increasing prosperity which has attended it, has ascertained its spirit and tendency: The people are distinguished by the spirit of inquiry, industry, economy, enterprize, and regularity: The government is dependent upon, but guides, and reverences the people: And the whole country is rapidly increasing in numbers, extent, wealth, and power. The highest perfection and felicity, which man is permitted to hope for in the present life, may rationally be expected in such a state of society: And it becomes of course the object of universal inquiry and attention.

To represent the state of things in America

in a proper light, particular accounts of each part of the federal union seem to be necessary ; and would answer other valuable purposes. An able historian, the Reverend Dr. Belknap, has obliged the world with the history of New Hampshire. The following treatise is designed to describe the operations of nature and society, in the adjacent state of Vermont. This is the youngest of the states, an inland country, and now rapidly changing from a vast tract of uncultivated wilderness, to numerous and extensive settlements. In this stage of society, industry and economy seem to produce the greatest effects, in the shortest periods of time.

The manner in which the work has been executed, I am apprehensive will require much candour in the reader. In the variety of subjects which have come under contemplation, I cannot flatter myself, that I have been free from errors and mistakes : And the reason why several of the subjects are so imperfectly considered, was because I had not the ability or information to state them otherwise.

The American war considered with respect to its causes, operations, or effects, presents to our view some of the most important events, which have taken place in modern times : But neither of these particulars can be comprehended in the history of any particular state. To give such an imperfect view of this subject as could be properly contained in the history of Vermont, did not appear eligible. No further accounts therefore of the war, are inserted, than what appeared necessary to explain the subject, which I had more particularly in view.

THE controversies which took place between the states of Vermont, New York, and New Hampshire, were of the most dangerous nature; and they were agitated for a while, with a violence greatly unfavorable to the peace and safety of the whole union. Most of the wars which have taken place among mankind, have been occasioned by disputes respecting territory and jurisdiction: And however just or proper it might be for any nation, to give up part of its territory and dominion to its neighbours, such a sacrifice was scarcely ever made without compulsion and force. To have expected New York would voluntarily give up part of her territory, when the decisions of the king, and the law were in her favor, was to expect that which is never done by any sovereign or nation, while they have power to prevent it. To have expected the people of Vermont would voluntarily submit to a government, which set aside their titles to the lands which they had purchased of the crown, and made valuable by their labours and sufferings, was to look for that, which no people ever ought to submit to, if it is in their power to avoid it. When the states of New-York, New Hampshire, and Vermont, had engaged in a controversy of this kind, it was more agreeable to the course of human affairs to expect it would produce a civil war, than to look for so much wisdom and moderation among either of the contending parties, as to prevent it.

IN relating these controversies, I have felt a constant anxiety, lest I should misrepresent the proceedings of either of those states. I had not the interests or the passions which those parties

produced, to guard against; nor am I apprehensive that prejudice has misled me, in relating any of those matters. But it is not improbable that I have not had compleat information in some particulars, respecting those complicated controversies; and may have mistaken the views of parties, in some of their leading transactions. If this should be found to be the case, it will give me great pleasure to receive such further information, as shall enable me to correct any mistakes. Those who point out to us our errors, perform the same friendly office, as those who help us to new truths.

The most important of all our philosophical speculations, are those which relate to the history of man. In most of the productions of nature, the subject is fixed, and may always be found and viewed in the same situation. And hence a steady course of observation, serves to discover and ascertain the laws by which they are governed, and the situation they will assume in other periods of time. It is probable the actions and affairs of men are subject to as regular and uniform laws, as other events: And that the same state of society will produce the same forms of government, the same manners, customs, habits, and pursuits, among different nations, in whatever part of the earth they may reside. Monarchy, freedom, superstition, truth and all the general causes which actuate mankind, seem every where to bear the same aspect, to operate with the same kind of influence, and to produce similar effects; differing not in their nature and tendency, but only in the circumstances and degrees, in which they influence dif-

ferent nations. But nothing is stationary, nothing that depends upon the social state, is so unalterably fixed, but that it will change and vary with the degradation or improvement of the human race. And hence, while the nature of man remains unaltered, the state of society is perpetually changing, and the men of one age and country, in many respects appear different from those of another. And as men themselves are more or less improved, every thing that constitutes a part of the social state, will bear a different appearance among different nations, and in the same nation in different circumstances, and in different periods of time. To ascertain what there is thus peculiar and distinguishing in the state of society in the Federal Union, to explain the causes which have led to this state, to mark its effect upon human happiness, and to deduce improvement from the whole, are the most important objects which civil history can contemplate in America : And they are objects, every where more useful to men, than any refinements, distinctions, or discoveries, merely speculative.

I have wished to keep such objects in view, in considering the state of society in this part of the continent : But it is with diffidence that I submit the attempt to the view of the public. The disposition of America is to favor such attempts and publications, as are adapted to promote any valuable public purpose : But speculative and useless essays cannot much engage the attention of a people, whose main object is the prosperity and improvement of their country. The public sentiment will be a just decision, among which of these, the following work ought to be placed.

ADVERTISEMENT

TO THE

SECOND EDITION.

THE Booksellers have desired me to prepare the History of Vermont for another edition. The favorable reception which the public gave to the work, has lead me to wish to make it more perfect; and my friends have suggested that it would be of use to insert a more particular account of the *Wars*, which have taken place in this part of the continent. From the earliest settlement of the English and French colonies, contests arose, which gave rise to a course of such events. The passage from the one country to the other, lay through lake *Champlain*. This circumstance rendered this part of the country the field of hostile operations, and bloody campaigns. I have endeavored to collect an account of these transactions; but have not had all the advantages of authentic documents and public libraries, to make these researches so compleat as I wished. In making these collections, and some necessary additions to the natural and civil history of the State, the sizes of the papers increased so much beyond what I expected, that it was thought best to publish them in two volumes.

In the narrations, the reader will find a minuteness of dates, facts, and circumstances, not common in European productions; and not very entertaining in itself. This method was

adopted with choice, and by design. Persuaded that the American commonwealth is yet in the early years of its infancy, and unable to comprehend to what extent, magnitude, and dignity it may arise ; the author of these sheets views the history of a particular state, rather as a collection of facts, circumstances, and records, than as a compleat and finished historical production. The more important the *United States* shall become in the future periods of time, of the more importance it will be to be able to find a minute and authentic account of the facts, proceedings, and transactions, from whence the grand fabric arose. To collect and record such facts and proceedings, so far as they relate to this part of the country, is what I have attempted. It gave me pleasure to find that the first essay was not viewed in an unfavorable light by the people of Vermont ;* and I entertain the hope that what is now offered to the public, will meet with their approbation.

July 4, 1807.

* Letter from the Speaker of the General Assembly, to the Author of the History of Vermont.

WINDSOR, OCT. 12, 1795.

SIR,

THE Representatives of the People entertain a lively sense of your polite attention, by presenting them your Natural and Civil History of Vermont ; and of the service you have rendered your country, by adding to the republic of letters so valuable a book.

I am directed, Sir, by them to return you their thanks, with their sincere wishes, that your labor in this work, may prove as beneficial to yourself, as it must be useful to your fellow citizens.

I am, Sir, with great respect and esteem,
Your most obedient servant,
L. R. MORRIS, Speaker.

The Rev. Dr. SAMUEL WILLIAMS, L. L. D.

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THE

NATURAL AND CIVIL

HISTORY OF VERMONT.

CHAPTER I.

Situation, Boundaries, Area, Soil, and Face of the Country.

THE State of Vermont is situated between 42 degrees 44 minutes, and 45 degrees of north latitude; and between 1 degree 43 minutes, and 3 degrees 36 minutes of longitude, east from the meridian of Philadelphia. It is altogether an inland country; surrounded by the States of Newhampshire, Massachusetts, Newyork, and the Province of Canada. That part of the State of Vermont which is nearest to the sea coast, is at the distance of seventy or eighty miles, from any part of the ocean.

On the south, Vermont is bounded by the state of Massachusetts. This line is forty one miles in length, and was a part of the divisional line between Massachusetts and Newhampshire. It was derived from the decision of a former King of Great Britain. On March 5, 1740, George the second, resolved, "That the northern boundary of the Province of Massachusetts, be a similar curve line, pursuing the course of Merrimack river, at three miles distance, on the north side thereof, beginning at the Atlantic

ocean, and ending at a point due north of Patucket falls; and a straight line drawn thence due west, until it meets with his Majesty's other governments." The point three miles north of Patucket falls, was found to be in the town of Dracut. From that point, the surveyor, Richard Hazen, in the months of February and March, 1741, ran the divisional line between Massachusetts and Newhampshire. He was directed by Mr. Belcher, at that time governor of both those provinces, to allow ten degrees for the westerly variation of the magnetic needle. The magnetic variation, at that time and place, was not so great, as the surveyor assumed: And when he arrived at Connecticut river, a distance of fifty five miles, instead of being in a west line, he had deviated to the north 2 minutes 57 seconds of latitude. This error in the direction of the line, occasions a loss of 59,873 acres to Newhampshire; and of 133,897 acres to Vermont.*

The eastern boundary of Vermont, is formed by the west bank of Connecticut river. This line, following the course of the river, is about two hundred miles; and is derived from the decree of George the third. On the 20th of July, 1764, his Majesty ordered and declared, "The western banks of the river Connecticut, from where it enters the Province of Massachusetts Bay, as far north as the forty fifth degree of northern latitude, *to be* the boundary line between the two Provinces of Newhampshire and Newyork."

The north line of the State begins at the lat-

*Appendix No. I.

itude of 45 degrees north, and runs upon that parallel, from Lake Champlain to Connecticut river. This line is ninety miles and one quarter of a mile long, and divides this part of the United States from the Province of Canada. Much pains was taken by the Provinces of Newyork and Canada, to ascertain the latitude of 45 by astronomical observations. This was done by commissioners from both Provinces, in the month of September, 1767. At the place where the line crosses Lake Champlain, they erected a monument of stone, which is yet standing. The line was afterwards run in the year 1772 by I. Carden and I. Collins of Quebec, but with great error. By order of Governor Tichenor, in 1806, I examined the situation of this line in the eastern part of the state. By astronomical observations I found the monument they had erected on the eastern bank of lake Memphremagog, was in the latitude of 44 degrees 53 minutes 46 seconds; and at Connecticut river, their monument was in the latitude of 44 degrees 47 minutes 59 seconds. Admitting their line to have been run in a straight course, this would imply an error of 8 degrees 52 minutes 19 seconds in the direction; and occasions the loss to Vermont of 401973 and an half acres of land; equal to 17 44-100ths townships. The direction of Connecticut river is from the northeast, and on that account if the divisional line was continued on the parallel of 45 degrees till it intersected the river, one or two more townships of land would accrue to Vermont. This line ariseth from the proclamation of George the third, of

October 7, 1763, determining the southern boundary of the province of Quebec ; and from the treaty of peace between Britain and the States of America, in 1783.

Beginning at the southwest corner of the town of Pownal, the west line of Vermont runs northerly, along the western boundaries of the townships of Pownal, Bennington, Shaftsbury, Arlington, Sandgate, Rupert, Pawlet, Wells, and Poultney, as the said townships are now held and possessed, to the river commonly called Poultney river ; thence down the same, through the middle of the deepest channel thereof, to East Bay ; thence through the middle of the deepest channel of East Bay, and the waters thereof, to where the same communicate with Lake Champlain ; thence through the middle of the deepest channel of Lake Champlain, to the eastward of the islands called the Four Brothers, and to the westward of the Islands called the Grand Isle, and Long Isle, or the Two Heroes, and to the westward of the Isle la Mott, to the forty fifth degree of north latitude. This line is about one hundred and seventy miles in length ; and results from the declaration of the commissioners of Newyork, of October 7, 1790 ; and the concurring act of the General Assembly of the State of Vermont, passed October 28, 1790.

Computing by the latitudes, the length of the State from the southern to the northern boundary, is one hundred and fifty seven miles and an half. The mean width from east to west is about sixty five miles. This will give 10,237 and an half square miles, or 6,552,000 acres, as

the superficial area contained within the boundaries of Vermont; but a considerable deduction must be made, to exclude the waters, and reduce it to the just quantity of land.

The land included within these limits, is of a very fertile nature, fitted for all the purposes and productions of agriculture. The soil is deep, and of a dark colour; rich, moist, warm, and loamy. It bears corn and other kinds of grain, in large quantities, as soon as it is cleared of the wood, without any ploughing or preparation: And after the first crops, naturally turns to rich pasture or mowing.

The face of the country exhibits very different prospects. Adjoining to our rivers, we have the wide extensive plains, of a fine level country. At a small distance from them, the land rises into a collection and chain of high mountains, intersected with deep and long vallies. Descending from the mountains, the streams and rivers appear in every part of the country, and afford a plentiful supply of water.

CHAPTER II.

MOUNTAINS.---*Their Direction, Altitude, Tops, Caverns, the Origin of Springs and Rivers.*

IN the formation of our mountains, nature has constructed her works on a large scale; and presents to our view objects, whose magnitude and situation, naturally engage our attention. Through the whole tract of country which lies between the west side of Connecticut river, and the east side of Hudson's river, and Lake Champlain, there is one continued range of mountains. These mountains begin in the Province of Canada: From thence, they extend through the States of Vermont, Massachusetts, and Connecticut, and terminate within a few miles of the sea coast. Their general direction is from N. N. E. to S. S. W. and their extent is through a tract of country, not less than four hundred miles in length. They are one continued range or collection of mountains, appearing as if they were piled one upon another. They are generally from ten to fifteen miles in width, are much intersected with vallies, abound with springs, and streams of water, and are every where covered with woods. Their appearance, is among the most grand and majestic phenomena, which nature exhibits. From the perpetual verdure which they exhibit, they are called the Green Mountains; and with great propriety their name has been assigned to the State.

The altitude of mountains, has been one of the curious inquiries, which the philosophers of this century have been solicitous to determine. The most common method of measuring their heights, has been by the Barometer. I do not know that in many cases, a better method could have been applied. The theory however of this, is not attended with certainty, or precision: And in its application, it has generally given very different altitudes, to the same mountain. Geometrical mensurations admit of greater certainty and simplicity, where they can be applied: But the difficulty and expence of making such mensurations, have prevented any great progress from being made, in this part of the natural history of the earth. In North America, the height of most of our mountains, remains yet to be determined. In December, 1792, I attempted to ascertain the altitude of Kellington Peak, one of the highest of the green mountains, by a geometrical process; and had the happiness to succeed in the mensuration. The measures stood thus,

	Feet.
Height of Kellington Peak above the plain at the State House in Rutland, by geometrical mensuration, - -	2813
Height of the State House above the waters of Lake Champlain, deduced from the mensuration of the falls of Otter Creek, and a computation of other descents, - - - -	371
Descent of the water from that part of Lake Champlain where the current begins, to St. John's, a distance of fifty miles, estimated at 12 inches to a mile,	50

Falls between St. John's and Chamble, estimated, - - - - - 40

Descent of the water from the bason of Chamble to Quebec, a distance of one hundred and eighty miles, estimated at twelve inches to a mile, - - 180.

Admitting the waters of the river St. Lawrence at Quebec, to be of the same level as the sea, the altitude of Kellington Peak, by these measures and computations, is 3454 feet above the level of the ocean. The altitude at which a perpetual congelation takes place in this latitude (43 degrees 30 minutes) is about 8066 feet above the level of the sea. This is probably four fifths of a mile higher than the tops of our highest mountains.* But although they

* Mount Blanc in Savoy, is the highest mountain in Europe, and probably the highest in the other hemisphere. In 1787 its altitude was found by M. de Saussure to be 15,673 English feet above the level of the sea. In the southern parts of America, M. Bouguer found the highest part of the Cordilleras, to be 20,590 feet in height; this is the highest of any upon the globe. In Virginia, according to Mr. Jefferson, the mountains of the Blue ridge, and of these the Peaks of Otter, are thought to be of the greatest height, measured from their base. "From data," saith he, "which may found a tolerable conjecture, we suppose the highest peak to be about 4000 feet perpendicular." (Notes on Virginia, Phila. Edit. p. 18.) The white mountains in the northeasterly part of Newhampshire, are generally esteemed to be the highest lands in New-england. Their altitude has not been determined by geometrical mensuration, but there is one circumstance attending their phenomena, which may serve to denote their altitude, with much probability. From the observations which have been made of their tops, it appears that the altitude of the highest of the white mountains, is below the point of perpetual congelation. On June 19, 1774, on the south side, in one of the gullies, the snow was five feet deep. On September 1, 1783, the tops of the mountain was covered with ice and snow, newly formed. In 1784, snow was seen on the south side of the largest mountain, until July 12th. In 1790, the snow lay until the month of August. In general, the mountain begins to be covered with snow as early as September; but it goes off again, and seldom becomes fixed until the end of October, or the beginning of November: But from that time, it remains until July. (Belknap's Hist. Newhampshire, 3. 46, 47.) From these observations it is apparent, that the white mountains rise nearly to the line of perpetual congelation in that latitude, but do not fully come up to it. These mountains are in the latitude of 44 degrees 15 minutes north. The line of perpetual congelation in that latitude, as deduced from the observations which have been

are far below the freezing point in summer, their phenomena and productions are very much affected by the degree of cold, to which they are constantly exposed.

The tops of our mountains are generally composed of rocks, covered over with moss. The trees appear to be very aged, but they are of a small size ; and all of them are of the species called evergreens ; pine, spruce, hemlock and fir ; intermixed with shrubs and bushes. The powers of vegetation regularly diminish, as we approach the summit of an high mountain ; the trees degenerate in their dimensions, and frequently terminate in a shrubbery of spruce and hemlock, two or three feet high ; whose branches are so interwoven and knit together, as to prevent our passing between them. Trees thus diminished, with shrubs and vines bearing different berries, and a species of grass called winter grass, mixed with the moss of the rocks, are all the vegetable productions, which nature brings forth on the tops of our highest mountains.

The sides of our mountains are generally very irregular, and rough ; and some of them appear to have large apertures, or openings among the rocks. Among these subterraneous passages, some caverns of a considerable extent have been found. One of these is at Clarendon, on the southeast side of a mountain, in the

made in Europe, is 7872 feet above the level of the sea. From the greater coldness of the American climate, the point of perpetual congelation in a similar American latitude, cannot exceed, but must rather fall something short of this. The altitude therefore of the white mountains, cannot be estimated as more than 7800 feet above the level of the ocean ; and this is probably the altitude of the highest mountains in the eastern states.

westerly part of the town. The mouth of the cave is not more than two and an half feet in diameter. In its descent, the passage makes an angle with the horizon of 35 or 40 degrees; but continues of nearly the same diameter, through the whole length, which is thirty one feet and an half.---At that distance from the mouth, it opens into a spacious room; twenty feet long, twelve feet and an half wide, and eighteen or twenty feet high. Every part of the floor, sides, and roof of this room, appear to be a solid rock, but very rough and uneven. The water is continually percolating through the top, and has formed stalactites of various forms; many of which are conical, and some have the appearance of massive columns.---At the north part of this room, there is another aperture of about forty inches diameter, very rough and uneven. This aperture is the beginning of another passage, through the internal parts of a solid rock: The direction of this passage is oblique, and full of stops or notches, and its length about twenty four feet. Descending through this aperture, another spacious room opens to view. The dimensions of this apartment are twenty feet in width, thirty in length, and twenty in height. In the spring of the year, the whole of this lower room is full of water; and at all other seasons, water is to be found in the lower parts of it.---No animal has been found to reside in this cave, and it evidently appears to be the production of nature, untouched by the hand of man.---Another of these caverns is at Danby, and a third at Dorset. These are said to be more curious than this at Claren-

don, but they have not been properly explored. There are others in different parts of the state : All of them are the genuine productions of nature ; never altered by art, and never inhabited by any of the human race.

One of the most curious and important operations which nature carries on in the mountains, is the formation of springs and rivers. All our streams of water in Vermont, have their rise among the green mountains : From a number of these uniting, are formed all those brooks and rivers, which run in different directions through the various parts of the country : And in general, the origin of rivers is to be found in the mountains, or high lands. In what manner do the mountains serve to produce these effects ? And whence is it, that the highest mountains attract, collect, become the reservoirs, the receptacles, or the source, of the largest and most constant collections of water ? One part of this effect, seems to be derived from the constant ascent of the waters, from the bowels to the surface of the earth. That water is contained in large quantities in the bowels of the earth, is evident from the springs which are found in almost all declivities ; and from those which every where supply wells, at the depth of twenty or thirty feet from the surface of the earth. That these waters are constantly ascending towards the surface of the earth, and going off into the atmosphere, is evident from the evaporation which is constantly taking place, and from the manner in which heat, or as it is generally expressed, a drought affects both the surface of the earth, and the springs, by raising and dissi-

pating the water from both. If this ascent of the waters be obstructed by any strata of clay, rocks, or any other substance, through which they cannot pass, they will collect in such quantities, as to form or find for themselves a channel, through which they may be discharged. The place of this discharge can only be on the side of a hill, or in some ground below the level of that place, where they are thus collected: And at such a place the waters would continue to issue out, as long as they continued to ascend, whatever might be the severity or duration of a drought. In some such way, it appears probable to me, that some of the springs are formed in the mountains, by waters which are ascending towards the surface of the earth; but which, instead of going off at the top, have their discharge in small quantities, at the sides of the mountains. Any strata of clay, rocks, or of any other matter, which would retain the water when it descends in rain or dew, and produce a spring from their descent, would also prevent the ascending water from passing thro' them, and might produce a spring from their ascent. This ascent of the waters from the bowels to the surface of the earth, is a constant, powerful, and unceasing operation of nature: And seems to be the only cause, which is adequate to the formation of those springs, which are *perennial*. Such springs could scarcely be formed, or preserved, by the waters which descend in rain, because they are so little affected in the severest droughts: In these seasons, instead of being replenished by rain, the earth to the depth of many feet, is much exhausted of

its water by heat. And no rain can ever fall upon the surface of the earth, which was not first carried off from it, by evaporation.

Mountains serve also to form small streams and rivulets, by preventing the evaporation of water from their surfaces. The vapours out of which the clouds and rains are formed, are all of them first raised from the surface of the earth. When the evaporation is in an open field, exposed to the sun and wind, the exhalations are soon carried off into the atmosphere, and the surface of the earth is left dry. When the evaporation is from lands covered over with thick trees and bushes, the influence of the sun and winds are much prevented ; and the waters stagnate upon the surface of the earth, and render it wet and miry, in the form of swamps, and confined waters. When the evaporation is from the sides and tops of mountains, covered with vegetables, the waters are but slowly carried off by the heat and wind ; nor can they stagnate, but will be gradually and constantly descending down the sides of the mountains, in natural or artificial channels : And in this way, the mountains will also be constantly producing small streams or rivulets.

A similar effect will also be produced by the condensation and collection of the vapours in the atmosphere, occasioned by the height and coldness of the mountains. When the weather is fair and clear, and the atmosphere serene and pleasant in the vallies, the tops of the mountains are often obscured, and covered with a thick fog or cloud. In the cool mornings of the spring and fall, the vapours form a thick fog on

the sides and tops of the mountains, which do not dissolve and disappear, until the sun has risen several degrees above the horizon, and the heat is considerably increased. In damp and rainy weather, the largest part of the clouds seem to collect, and dissolve upon the mountains. In winter the snows fall sooner, lie deeper, and continue longer on the mountains, than on any other part of the country. These phenomena denote a greater, and a more constant collection of vapours and clouds by the mountains, than takes place any where else ; and it seems to be occasioned by the greater degree of cold, which prevails in those elevated situations. The highest parts of our mountains generally abound with rocks, and are covered with large quantities of thick green moss ; so extensive, compact, and thick, as to reach from one rock to another, and of so firm a contexture as to bear the weight of a man, without being broken. These immense beds of moss retain the moisture supplied by the clouds and rain : And while part of it runs down the sides of the mountains, part will be detained by the spungy surface, to penetrate and sink into the earth. On this account, and for want of a more rapid evaporation, several of our mountains are constantly wet on their tops, and have marshy spots, which are frequented by the aquatic birds. The roads over these mountains are frequently very wet and miry, when the valleys below are dry. When the waters thus supplied by the clouds and rain, meet with any strata which prevent their descent, they collect in such quantities as to form a channel, and issue out

at the sides of the mountain in the form of springs and rivulets. All those springs, which are *intermitting*, seem to be thus formed by the rains, or descending waters: And the more constant and regular the rains are, the more permanent and steady will these springs be: Such kinds of intermitting springs are to be found in great numbers, on the sides of all high mountains. They never fail to run while the rains continue in their usual quantities; but when the rains cease, and a severe drought comes on, these springs are always found to fail.

In each of these ways, the mountains supply water for the springs and streams, out of which, the rivers are formed: And they are such as can never fail, while the present economy of nature shall subsist. But as the country becomes cultivated, some of the smaller streams must decrease; and it is not improbable that when the woods shall be cut down, some of the lesser springs will wholly disappear.

The writers on natural history have been much divided in their opinions respecting the origin of springs and rivers. M. De La Hire contends that the water from which the rivers are supplied, must be derived from the sea, and raised through the pores of the earth: That no other source would be sufficient to produce those immense streams, that constantly appear in the form of brooks and rivers; or that could supply the vast quantities that are employed in vegetation, or discharged into the atmosphere by evaporation. Hist. de l'Acad. 1713. p. 56. Dr. Halley, on the other hand, has said much to show that the vapors which are exhaled from

the sea, and driven upon the lands by the winds, and return in the form of rains, are more than sufficient to supply the earth with all the water that it needs ; and to form the fountains, springs, and rivers, which are perpetually discharging themselves into the ocean. Phil. Trans. Vol. 2. p. 128.

Both these theories agree in deriving the water originally from the sea ; nor does there seem much difficulty in admitting the principle of either : The former seems most naturally to account for those perennial springs, which never fail when the rains have ceased for months ; and the latter serves to explain the cause of those, which are temporary, or intermitting.

In the plains, hills, and mountains in this part of the continent, there is scarcely a place in which water may not be found at the depth of thirty or forty feet from the surface of the earth ; nor does there appear to be any more difficulty to have a well with permanent water, in the one than in the other of these situations. It must therefore be admitted as a well established fact, that the earth at that depth is well saturrated with water ; nor does it fail, nor is the temperature of the earth at that depth much affected, in the hottest, or in the dryest season that we ever have. It may be presumed therefore that the effect of the solar heat, and the evaporation produced by it, does not extend much below that depth ; and that every where below, the earth is saturrated with water by the attraction or affinity that takes place between the particles of the one and those of the other.

It is customary with the farmers in the

New England states to avail themselves of this process of nature, and to form a *perennial* spring for their own convenience. The method of proceeding is this, on the side of a hill they dig a well, till they come to a sufficient quantity of water, generally from eighteen to forty feet below the surface. A passage is then dug from the bottom of the well to the side of the hill, that the water may find a regular discharge through the artificial channel, when it is received and retained in troughs or other receptacles for the use of their cattle. In this way artificial springs are often formed, which do not fail in our dryest summers, but become *perennial*, and are in every respect as permanent and useful as those which are formed by nature. From whence is the water derived that supplies these artificial perennial springs? Not certainly from rains and showers, which are casual, accidental, and variable; but from waters which are always in the earth at that depth, and lie too far beneath the surface to be much affected by rain or drought.

If in this way we are able to form artificial perennial springs, is it to be much doubted but that nature does the same in a much more extensive and perfect manner? And would not this be always the effect, when the water in our hills and mountains can find or force for itself a passage, at the side or bottom of the declivity? The phenomena seem to denote such operations and effects. In all our mountains perennial springs are found issuing at their sides or bottoms. In our most extensive and sandy plains perennial springs are often found at the bottom

of their declivities. These springs continue, when the whole plain for many miles round is so parched and burnt up with drought, that vegetation almost ceases. Could these springs be supplied with water derived from rain, when it has ceased for months ; or has not been enough to preserve the vegetables from perishing ? From what other source then could they be supplied, but from the water which is permanently and plentifully in the bowels of the earth, and is not dissipated or wasted by evaporation or heat ?

CHAPTER III.

RIVERS AND LAKES.---*The Situation, Channels, Intervales, Courses, Depths, and Effects of the Rivers. An account of Lake Champlain, and Memphremagog.*

ALL the streams and rivers of Vermont, have their origin among the green mountains. About thirty five of them have an easterly direction, and fall into Connecticut river. About twenty five run westerly, and discharge themselves into Lake Champlain: Two or three, running in the same direction, fall into Hudson's river. In the northeasterly parts of the state, there are four or five streams which have a northerly direction, and run into the lake Memphremagog; from thence, through the river St. Francis, they are emptied into the river St. Lawrence.

THE most considerable streams on the west side of the green mountains, are Otter creek, Onion river, the river Lamoille, and Michiscoui.---Otter creek rises in Bromley; runs northerly about ninety miles, and falls into Lake Champlain at Ferrisburgh; and in its course receives about fifteen smaller streams. There are large falls in this river at Rutland, Pittsford, Middlebury, and Vergennes. Between these falls, the current is very slow, the water is deep, and it is navigable for the largest boats. Vessels of any burden may come up to the falls at Vergennes, five miles from its mouth. The head of this river in Bromley is not more

than thirty feet from the head of Batton Kill, which runs in a contrary direction, and falls into Hudson's river.

Onion river, was formerly called the French river, and by the Indians, Winooski. It rises in Cabot, about fourteen miles to the west of Connecticut river, and thirty miles to the east of the heights of the green mountains. A small southerly branch rises in Washington and Corinth, not more than ten miles from Connecticut river. From this southerly branch, Onion river runs northwesterly, about seventy five miles, and empties itself into Lake Champlain, between Burlington and Colchester. This river receives fourteen smaller streams, and is navigable for small vessels, five miles from its mouth. It has several falls, between which it is navigable for boats. At one of these falls in Waterbury, the channel of the river becomes very narrow, and passes between a high ledge of rocks on each side. A huge unshapely rock, in some ancient time, hath fallen from one of these ledges, in such a manner, that the whole river now runs under it. The rock forms a kind of natural bridge, but one that can never be of any use ; as neither the shape of the rock, or the situation of the adjacent banks, will ever admit of a road either to, or over the rock. About six miles from its mouth, between Burlington and Colchester, the channel of this river is formed by a solid rock. The channel through the rock, by estimation, is fifteen rods in length, fifty feet wide, and seventy feet deep. Every appearance seems to denote that this channel was formed by the water, which in this

place could not have had any other passage.--Onion river is one of the finest streams in Vermont. It runs through a most fertile country, the produce of which for several miles on each side of the river, is brought down to the Lake at Burlington. It was along this river, that the Indians formerly travelled from Canada, when they made their attacks upon the frontier settlements on Connecticut river.

The river Lamoille proceeds from a pond in Glover. Its general course is westerly : After running about seventy five miles, and receiving fourteen lesser streams, it falls into Lake Champlain at Colchester, five miles north of the mouth of Onion river ; and is of the same magnitude as that. The river Lamoille is a fine, smooth, and pleasant stream ; and runs through a rich, level, fertile, country. The height of the land in the northeast part of the state, seems to be about Greenborough. About six miles to the southwest of the origin of the river Lamoille, is Scotland pond : From this proceeds Black river, which, for five or six miles runs in a direction opposite to, and nearly parallel, with that of the river Lamoille, and discharges itself into the lake Memphremagog.

Michiscoui is the Indian name of the most northerly river in the state. It has its source in Belvidere, and runs nearly northeast until it has crossed the north line of Vermont : After running to some distance in Canada, it turns west, and then southerly, and then reenters the state in Richford ; and falls into Lake Champlain at Michiscoui bay, in Highgate. This river is navigable for the largest boats to the

falls at Swanton, seven miles from its mouth. Michiscoui, Lamoille, and Onion river, are nearly of the same magnitude.

On the east side of the green mountains, the rivers are not so large as those on the west, but they are more numerous. The largest of them are Wantastitquek or West river, White river, and Poousoomsuck. Wantastitquek has its main source in Bromley, about three miles southeast from the head of Otter creek. Its course is to the southeast; it receives seven or eight smaller streams; and after running about thirty seven miles, falls into Connecticut river at Brattleborough. At its mouth this river is about fifteen rods wide, and ten or twelve feet deep.

The north branch of White river, rises in Kingston. The south branch has its source in Philadelphia. From Kingston, the general course of this river is southerly; its length about fifty miles; it receives six or seven lesser streams; and falls into Connecticut river at Hartford. White river abounds with falls and rapids; at its mouth it is about eighteen rods in width, but not more than ten feet in depth.

Poousoomsuck, rises from a pond in Westmore. Its course is southerly; it is made up of ten lesser streams; and after running about forty five miles, it joins Connecticut river in Barnet. It is there twelve rods wide, and eight feet deep.

Connecticut river, into which these streams fall, forms the eastern boundary of the state. The original Indian name, which it still

bears, signifies the long river.* This river has its source in a ridge of mountains, which extend northeasterly to the gulph of St. Lawrence. The head of its northwestern branch, is about twenty five miles beyond the latitude of forty five degrees; and so far it has been surveyed. When it first enters the state, it is about ten rods wide; and in the course of sixty miles increases in its width to twenty four rods. Its course between Vermont and Newhampshire, a distance of two hundred miles, is southwesterly; from thence to its mouth, the course is more southerly. After running about four hundred miles through the country, and receiving a great number of other streams and rivers, it discharges itself into the ocean at Seabrook.---With respect to its length, utility, and beauty, this is one of the finest rivers in the eastern states. In the months of April or May, it overflows its banks; and for a length of three hundred miles, forms and fertilizes a vast tract of rich meadow. Vessels of eighty or one hundred tons, go up this river as far as Hartford in Connecticut, fifty miles from its mouth. It is navigable for boats, three hundred miles further, except the falls which the states of Vermont, Massachusetts, and Connecticut, are now making navigable by locks. While it increases the richness, and serves to transport the produce, by its perpetual majestic movement through an

* The names which the original inhabitants assigned to our mountains, plains, and valleys, are mostly lost. Many of our rivers, bays, and falls of water, are yet known by their ancient Indian names. On account of their originality, antiquity, signification, singularity, and sound, these names ought to be carefully preserved. In every respect they are far preferable to the unmeaning application, and constant repetition of an improper English name.

immense tract of country, it is always adding beauty and grandeur to the prospect.

To this account of our rivers, some observations may be added respecting their operations and effects.---Their first operation seems to have been, to form themselves a channel. The highest waters descend along the mountains, until they meet with some obstacle to obstruct their motion. Whatever this obstacle may be, it operates as a dam, and serves to collect the waters into a small pond or lake. Two causes are constantly raising the waters, in such collections : The earth is perpetually brought down by the waters, to the bottom of such ponds ; and the water is constantly rising by its own accumulation. When it is raised above the banks, the waters find their passage in the lowest part, and begin to form a channel there ; and a channel thus formed, will constantly be made more and more deep, by the perpetual running of the water. A similar operation must take place through the whole course of the river, from its first rise and source, to its final discharge into the waters of the ocean. Their channels must at first have been formed by their waters ; which, constantly accumulating, and struggling for a passage, approach, or discharge themselves into the nearest situation they could take to the centre of the earth.

In this descent and passage to the ocean, all the large rivers in this part of America, have also formed large tracts of intervale lands. By intervales we mean those low lands, which are adjacent to the rivers, and are frequently overflowed by them in the spring and fall, or whenev-

er the waters are raised to their greatest height. These intervales are level, and extensive plains; of the same altitude as the banks of the river; in width they often reach from a quarter of a mile, to a mile and an half, sometimes on one, and sometimes on both sides of the river. There are frequently two strata of the intervales, the one four or five feet higher than the other; the highest of which is not overflowed, but when the waters are raised to an uncommon height; but they are level, and extensive like the other. Both of them have many indications, that they were formed by the waters of the rivers. The soil is always of that rich mud and slime, which is brought down by the rivers in the spring. In digging into these lands, various appearances of decaying vegetables are frequently found. The strata formed at particular years, are easily distinguished; and the original and new made soil are so different, as to be readily known. The limbs and trunks of large and sound trees, are often found at various depths; sometimes so low as forty feet below the surface. The small islands in these intervales, are of a different soil, and less rich; and are evidently the tops of small hills, which have not been covered by the inundations of the rivers. These long and level surfaces are peculiar to the banks of rivers, and consist of the same rich manure which is yet annually brought down, and deposited by the waters. The cause, by which they are now annually increased, could not fail to have produced such effects, in the course of a long series of years.

In these intervales there are several places,

where another curious phenomenon occurs. The rivers have changed their courses, their ancient channels are left dry, and they have formed new ones. In the uncultivated parts of the country, where the operations of nature have not been altered or changed, the traveller finds many places where the rivers formerly rolled, which are now dry, and at a considerable distance, sometimes a mile or more from the present beds of those rivers. In some of these ancient channels, the waters must have run for a long number of ages ; as they have worn the surface of the stones as smooth as those, which are to be found on the sea shores. In some places the former channels are left dry, abounding with smooth stones and rocks : In others, the channels are converted into ponds, or overgrown with bushes or trees. Appearances of this kind are common in all the mountainous parts of the country ; and something of the same kind, is constantly taking place in most of our rivers. In all large streams, the channel is more or less affected every year : Strips of land, one or two rods in width, and of some miles in length, are often carried off in the spring ; and additions are made to the banks in other places. The lands thus formed, in some places, in the course of a few years amount to several acres, and are of an uncommon richness and fertility ; but they are always attended with an equal loss in some other part of the river.

The depth of the channels which our rivers have formed, depends upon a variety of circumstances : The nature of the soil, the declivity of the river, the situation of the adjacent banks,

the quantity of water, &c. Their channels have been formed two ways, by the wearing away of the ground in some places, and by forming or raising the intervale lands in others; but most generally the channels of our rivers have been formed in both these ways. In large streams passing through the intervales which they have formed, and moving with a gentle force, the depth of the channels appear to have a similarity, or at least a resemblance. The depth of the channels in such situations, in sundry places in Connecticut river, Ottercreek and Onion river is forty or fifty feet below that of the adjacent banks. But the alteration in the depth of these channels, is so gradual and slow, that it has scarcely been perceptible, since the first settlement of the country by the English.

It is not only in the channels and intervales, which the rivers have formed, that their effects are to be seen; but their operations are also visible, upon the stones and rocks. The stones which have been constantly washed by the streams are always found to be smooth and even; and the rocks in many places, are not only become smooth and slippery, but they are much worn away by the constant running of the water. There is another phenomenon extremely curious, derived from this cause; in several rivers, there are holes or cavities, wrought into the solid body of large rocks, by the descent, or circular motion of the water. At Rockingham, there is a remarkable fall in Connecticut river, where the water passes over a bar of solid rock; and which it must have been constantly passing over, ever since the river

began to flow. In the rocks at these falls, there are several cavities, which appear to have been formed by the circular motion of small stones, constantly kept in action by the force of the descending waters. Some of these cavities are two or three feet in diameter, and from two to four feet in depth; and probably they are yet increasing. Such phenomena are not uncommon wherever there are deep falls in our rivers. But the most singular appearances of this nature which I have ever seen, are at Cavendish, upon Black river, near the house of Salmon Dutton. Here, the channel of the river has been worn down, one hundred feet; And rocks of very large dimensions, have been undermined, and thrown down, one upon another. Holes are wrought into the rocks, of various dimensions, and forms: Some of them are cylindrical, from one to eight feet in diameter, and from one to fifteen feet in depth: Others are of a spherical form, from six to twenty feet diameter, worn almost perfectly smooth, into the solid body of a rock.

How long a period nature has been employed in carrying on these operations, we can scarcely hope to determine. All the circumstances relating to the channels of rivers, and the intervales which they have formed, are such as denote periods of time very remote, and of the highest antiquity. It can scarcely be supposed that in the formation of the intervales, the annual increase has amounted to the tenth part of an inch. At present, the freshets in the spring and fall, and throughout the year, do not annually deposit the one half of this quantity of

earth, upon the intervales. At no place in this state, is there any appearance that the surface of the intervales has been raised an inch, in the period of ten years. But admitting such an increase, where the depth of the intervales are fifty feet, the period necessary to produce such an effect, would be six thousand years. But in all such kinds of computation, the data which we assume, are not marked with sufficient certainty or precision, to leave us satisfied with the conclusion. The effects of the rivers upon the solid rocks, seem to be more slow, regular and uniform. There are situations in this, and in every part of America, where the water has been constantly flowing over a solid body of rock, ever since the channels of the rivers were first formed. If we knew from observation, how much such rocks were worn away in one century, by the waters, we could form a pretty just conclusion how long the waters have been running in those places. If the philosophers of the present age will make accurate observations of the altitude and situations of such rocks, and put their observations upon record in the transactions of their philosophical societies, they will enable posterity to solve a problem, which we can hardly expect to determine in our day.

While the one half of our rivers pass off into the ocean to the south, through Connecticut river, the other half find their way to the ocean, at the northeast, through Lake Champlain and the river St. Lawrence.---Lake Champlain is the largest collection of waters in this part of the United States. Reckoning its length from Fairhaven to St. John's, a course nearly

north, it will amount to about one hundred and fifty miles. Its width is from one to eighteen miles, being very different in different places; the mean width may be estimated at five miles. This will give one thousand square miles, or six hundred and forty thousand acres, as the area of its surface. Its depth is sufficient for the navigation of the largest vessels. It contains several islands; one of them, the Grand Isle, is twenty four miles long, and from two to four miles wide.

THE waters which form this lake, are collected from a large tract of country. All the streams, which arise in more than one half of Vermont, flow into it. There are several, which also fall into its eastern side, from the province of Canada. It is probable the rivers which flow into the west side, are as large, numerous, and extensive, as those on the east. The waters therefore, from which Lake Champlain is formed, seem to be collected from a tract of country, of a larger extent, than the whole state of Vermont.

THERE are many marks and indications that the surface of this lake, was formerly thirty or forty feet higher than it is now. The rocks in several places appear to be marked, and stained, with the former surface of the lake, many feet higher, than it has been, from its first discovery by Sir Samuel Champlain, in 1608. Fossil shells, the limbs and bodies of trees, are frequently found at the depth of fifteen or twenty feet in the earth; this is the case not only along the shores, but in the low lands at the distance of two or three miles from them. The

soil in many places near the shore, is evidently of the same factitious kind, as the intervales formed by the rivers. These, and other circumstances, have left no doubt in the minds of the inhabitants along the lake shore, that the waters of it were formerly much higher, and spread to a much greater extent, than they now are.

The operations of nature with respect to the lake, must have been the same that they were in relation to the rivers. When the waters discharged by the streams, amounted to such a collection, as to rise above the shores of the lake, they would overflow at the lowest part. There, the channel would begin; and being formed, it would become more and more deep, in the same manner as the channel of a river. The channel which this lake found, and formed, was to the northward; into the river St. Lawrence; and through that into the ocean. When this channel, by the constant running of the water, was worn down thirty or forty feet, the surface of the lake would naturally subside the same space.

At present there is but little alteration in the height of the waters, through the year. They generally rise from about the twentieth of April until the twentieth of June. Their rise is commonly from four to six feet, the greatest variation is not more than eight feet. The lake is early frozen round the shores, but it is not commonly wholly shut up with the ice, until the middle of January.* Between the sixth and the

* When the ice is become of its greatest density and firmness, large and extensive cracks or openings will suddenly take place. These cracks

fifteenth of April, the ice generally goes off; and it is not uncommon for many square miles of it, to disappear in one day.

The north line of Vermont passes over the south part of the lake Memphremagog. This lake is about forty miles in length, and two or three miles wide. It lies chiefly in the Province of Canada, and has a northerly direction. The river St. Francis forms a communication between the lake Memphremagog, and the river St. Lawrence. Round this lake, there is a rich soil, and a fine level country.

in the ice, generally run in an oblique direction, from one Cape to another, and often to the distance of ten or fifteen miles. Sometimes the ice will separate on each side, to the distance of five or six feet; at other times it will lap over, or more commonly be thrown up in ridges four or five feet high; and it is often broken into pieces of two or three feet diameter, all round the edges. These openings often prove dangerous to the traveller. They seem to be produced, by the occasional rise and fall of the waters, in the lake; which as they cannot remove, must operate to elevate and depress, and thus to bend and break, the extensive and solid body of ice, which must have assumed the spherical form, which the waters had when they were first frozen.

CHAPTER IV.

CLIMATE. *An account of the Temperature, Winds, Rain, Snow and Weather. The change of Climate which has attended the Cultivation of the Country.*

THE temperature of any particular place, depends chiefly upon the latitude, the cultivation of the country, the elevation of the place above the adjacent lands, and its proximity to the ocean. The latitude of Vermont is between 42 degrees 44 minutes, and 45 degrees north. Much the largest part of the state has never been cultivated. A large part of the land, is a range of mountains, much higher than the adjacent parts of the country : And the state is from eighty to one hundred and sixty miles from the ocean.

THE most common method of determining the mean degree of heat which prevails in any part of the earth, is by thermometrical observations. In the years 1789, 90, 91, I made a course of meteorological observations at Rutland, about the latitude of 43 degrees, 36 minutes. The greatest height of Farenheit's thermometer during that period, was 93 and a half degrees, on July 13, 1791. The least height was 27 below 0, on December 19, 1790. These may be esteemed as *near the extremes* of heat and cold, in this climate. The *mean heat*, deduced from the whole number of observations, was 43 and a half degres.

THE temperature of the climate may also be

determined by observations of the heat which prevails in deep wells and springs. The heat of the atmosphere, is derived from the heat, which takes place at the surface of the earth. In passing through the atmosphere, the solar rays do not communicate any heat to the particles of air. The rays must first fall upon the earth, be stopped, and collected, before they produce their effect: And no greater heat can ever be communicated to the atmosphere, than was first communicated to the surface of the earth. Hence we find the temperature of those wells and springs, which are so far beneath the surface of the earth, as not to be much affected by the heat in summer, or by the cold in winter, is the same as the mean temperature of that climate; or the mean heat of the atmosphere, in that place. The temperature of the water in the deep wells in this place, is exactly the same as the mean heat of the atmosphere. I have repeatedly examined the temperature of the water in a well near the State House, by estimation forty five feet in depth, and I have always found the heat to be 43 and a half degrees, without any variation in summer or winter.*

* On a Journey from the University at Newhaven in Connecticut, to Burlington upon Onion river, I made the following observations upon the temperatu re of the wells; which may serve to show in what manner the heat decre ases, as we advance towards the north, in a country but little cultivated.

Place.		Depth by estimation.	Temperature.
Newhaven,	President's well,	30 Feet.	49° 1-2
Middletown	Goodwin's Inn,	27	50
Hartford,	Bull's Inn,	40	49 1-2
Stockbridge,	Judge Edwards's,	25	50
Pittsfield,	Strong's Inn,	40	47 1-2
Tinmouth,	Judge Mattock's Spring,		44
Rutland	Buell's Inn,	45	43 1-2
Burlington,	Keyes' Inn,	25	42

ANOTHER view of the climate may be taken from the common operations of nature, the vegetable and animal productions. The times when the trees and plants put forth their buds, leaves, flowers and fruit, or when the different seeds are planted, spring up, are in blossom, produce their fruit, and are gathered in; when the birds of passage, or other migratory animals, make their approach or departure. Observations upon such phenomena, are among the best observations we can ever have, to ascertain the relative temperatures of different climates. Referring those which relate to the migration of animals, to the description of the birds, one or two small tables will serve to give us a view of the times, when different vegetables produce their fruit, in this part of the continent.

TABLE I.

A view of the Climate, taken from the state of Vegetation in the Trees and Shrubs.

Trees and Shrubs.	Buds.	Leaves.	Flowers.	Maturity.
Elder,	April 5	April 14	June 15	
Gooseberry,	April 6	April 16	May 9	July 20
Currant,	April 6	April 16	May 1	July 1
Raspberry,	April 6	April 17	May 27	July 5
Strawberry,	April 20	April 20	May 6	June 15
Wild Cherry,	April 20	April 28	May 4	June 28
Wild Plumb,	April 20	May 4	May 1	August 12
Apple Tree,	April 22	May 1	May 12	August 18

TABLE II.

A view of the Climate, taken from the fruits of the Field.

Seeds and Fruits.	Sown.	Flowers.	Gathered.
Flax,	April 16	June 25	August 1
Spring Wheat,	April 15	May 30	August 15
Winter Wheat	Sept. 1	May 26	August 1
Oats,	April 20	June 7	August 20
Peas,	April 16	May 26	July 1
Barley,	April 20	June 10	July 28
Rye,	August 20	May 27	July 28
Indian Corn,	May 15	July 12	October 1
Hay,			July 10

The frosts commonly cease about the beginning of June, and come on again between the first and the middle of September. When they first come, they appear not on the hills, or highest parts of the trees, but in the low and wet lands, and on the lowest parts of the trees. When a fog lies along the low lands adjoining to a river, when the winds are high, and when the lands are but partly or newly cleared, the frosts are retarded or prevented; and do not appear so soon, or so great, as in clear, low, and wet places. These circumstances seem to explain the reason why the frosts are first seen not on the high, but on the low lands. The dews and vapours are the most dense and abundant, in those places; much more so than they are at higher altitudes, or upon the hills. The first effects of the frost are not sufficient to freeze the leaves of the trees, or other vegetables. The cold at first avails only to effect the congelation of the dew and vapour; as these are chiefly to be found in the low and moist lands, and not higher than the lowest limbs of the trees, these are the places where the first effects of the frosts appear. A high wind serves to prevent these effects, by carrying off the dew and vapours; and a fog detains the heat in amazing quantities, and prevents its flowing off from the surface of the earth, either so rapidly, or in such quantities, as to occasion a frost.

In those places where the earth is not covered with snow, the frost penetrates several feet below the surface. In the winter of 1789 there was but little snow at Rutland; and the surface of the earth was frozen almost the whole

winter. On March the 19th the ground was frozen to the depth of three feet and eight inches. The ice in the lakes and stagnant waters, is generally frozen in the course of the winter, about thirty inches thick ; in the rivers and streams it is about twenty four ; and commonly goes off the last week in March.

The severest cold of our winters never kills any of our young trees, and seldom freezes any of our young cattle, although they are not housed during the winter. Nor is the cold so affecting to the human body, as the extremes, and sudden changes from heat to cold, on the sea coasts. From the time that the winter first sets in, until it breaks up, we have generally a settled steady cold ; for the most part without any thaw, and with but a few days in which the snow melts at all. During this period we become accustomed to the weather, and every thing in our feeling, and clothing is adapted to a steady and severe cold. Such a steady, equal temperature, is far more comfortable than those great and sudden changes which take place, where the extremes of heat and cold are frequently succeeding each other.

The temperature of the American climate is so different in different parts of the same state, and often in the same latitude, that it cannot be well understood, but by viewing it in its variations through the different parts of the northern continent. The following table is designed to exhibit such a comparative view.

Temperature of Climate at sundry places in N. America, from Thermometrical Observations.

Months.	*South Carolina.* Charleston. lat. 35° 45′	*Maryland.* lat. about 37°	*Virginia.* Williams-burg. lat. 37° 16′	*Pennsylvania.* Philadelphia. lat. 39° 56′.	*Massachusetts.* Cambridge. lat. 42° 23′.	*Vermont.* Rutland. lat. 43° 36′.	*University of Vermont,* Burlington. lat. 44° 27′.	*Canada.* Quebec. lat. 46° 55′	*Hudson's Bay.* Prince of Wales Fort. lat. 59°
	5 years obs. 1738—42.	1 year obser. 1753 and 4	5 years obs 1772—7.	1 years obs. 1748 and 9	5 years obs. 1784—8.	1 years obs. 1789.	5 years obs. 1803—8.	1 years obs. 1743 and 4	1 years obs. 1768 and 9.
	Mean Heat.	Mean Heat.	Mean Heat.	Mean Heat.	Mean Heat.	Mean Heat.	Mean Heat.	Mean Heat.	Mean Heat.
January	51°	44°	41° 2	28°	22° 5	18°	14° 4	10°	— 25° 6
February	54	43	44, 2	37	23, 9	18, 5	18, 9	10	— 17, 5
March	59	48	51, 2	44	32, 9	32	28, 5	22	— 9, 2
April	70	53	59, 2	50	45, 1	41	39, 5	40	21, 2
May	75	65	68, 7	62	54, 4	50	56, 3	52	38, 0
June	79	70	74, 9	70	66, 1	64	66, 6	67	50, 0
July	81	73	79 7	72	69, 6	67, 5	68, 2	69	56, 4
August	79	76	78, 6	70	69, 4	67, 5	67, 6	67	53, 0
September	73	72	71, 9	72	60, 0	57	57, 1	51	44, 0
October	62	60	63 9	53	50, 1	41	45, 2	44	28, 0
November	53	49	50, 6	39	40, 2	37	33, 5	36	1, 7
December	51	40	45, 9	33	29. 4	30	24, 7	20	—15, 5
M. of the ar.	66	60	60, 8	52. 9	47, 0	43, 6	43. 4	42	18, 7
Least Heat	18	10	6		—12	—21	— 20		— 45
Greatest Heat.	101	93	98		93	92	91	86	85
Observer.	Lining. Phil. Trans. Vol. 45 Page 341.	Brooke. Phil. Tra. 1759. p. 58.	Jefferson's Notes on Virginia. p. 136.	Kalm's Travels. Vol. 2. p. 149.	Williams.	Williams.	D.C.Sanders.	Gautier Hist. Acad. Royal Scie 1745. p. 194.	Wales. Phil. Trans. 1770. p. 137.

The winds in North America receive their general direction from the situation of the sea coasts, mountains, and rivers. These are very much from the southwest to northeast. The most prevalent of our winds, are either parallel with, or perpendicular to this course; or rather, they are from the northeast, east, southwest and northwest. More than one half of the winds which blow during the year, are from that quarter which lies between the southwest and northwest. The west and northwest winds are dry, cooling and elastic. These winds always begin at the sea coast. Those from the south and soutwest are more warm, moist and relaxing. The easterly winds seldom extend so far from the sea coast as Vermont. They not only lose their distressing chill and dampness, as they advance into the country, but they seldom reach so far as Connecticut river; and they are unknown on the west side of the green mountains. The winds seem to observe something like a regular course, during the day. At sunrise there generally seems to be a calm; about seven or eight o'clock, the wind begins to rise, which at nine or ten becomes a fresh breeze; and increases until one or two o'clock: From about three or four, the wind decreases until eight or nine in the evening; when it again becomes calm, and continues thus through the night. This general routine seems to be observed more generally in the latter part of winter, and in the spring, than at other times of the year. But there are times in those seasons of the year, when the wind rages without much intermission for two or three days together.

A general table of their directions at different places upon the continent, will give the best views of their comparative courses.

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THE Direction of the WINDS at sundry places in North America, deduced from annual Observations.

Place.	Time.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	No. of Ob.
Maryland,	1753 and 1754	9	59	71	72	53	45	8	207	524
Williamsburgh,	1772 to 1777	122	110	104	45	22	185	70	82	740
Philadelphia,	1748 and 1749	31	56	25	32	45	97	69	111	466
Cambridge,	1784 to 1788	61	127	111	36	86	271	177	226	1095
Rutland,	1789	153	13	16	76	272	182	125	258	1095
Un. Vt. Burlington	1803 to 1808	739	11	19	1	826	25	43	18	1682
Quebec,	1743 and 1744	1	194	0	1	14	261	2	35	508
Hudson's Bay,	1768 and 1769	169	78	86	51	83	70	159	359	1055

The quantity of rain which falls at those places in North America where meteorological observations have been made, has been found to be more than double to that which generally falls in the same latitude in Europe. We cannot well account for this, without supposing that the immense forests of America, supply a larger quantity of water for the formation of clouds, than the more cultivated countries of Europe. Many parts of America do however, suffer severely by drought: this is very seldom the case in Vermont. The lands are naturally moist, the mountains supply water for regular rains, and the heat of the sun is not so intense as suddenly to disperse the vapours, dry up the waters, or parch the land. These kinds of observations will be reduced to the smallest compass, and give the most complete comparative view, by exhibiting them in the form of a general table.

The quantity of RAIN which falls at sundry places in North America, in the course of one Year, computed from annual Observations.

Months.	*South Carolina*, Charleston. 8 years obser. 1738—1745. Mean altitude in inches.	*Virginia*, Williamsburg 5 years obser. 1772 1777. Mean altitude in inches.	*Massachusetts*, Cambridge. 5 years Obs. 1784—1788. Mean altitude in inches.	*Vermont*, Rutland. 1 years obs. 1789. Mean altitude in inches.
January	2,624	3,195	3,503	3,497
February	3,735	2,049	2,618	2,784
March	3,329	3,950	2,516	3,102
April	2,074	3,680	2,725	3,012
May	3,979	2,871	5,861	4,716
June	6,009	3,751	2,083	3,914
July	5,840	4,497	2,221	2,313
August	6,964	9,153	2,278	2,106
September	4,944	4,761	3,791	2,481
October	2,450	3,633	2,466	5,662
November	2,194	2,617	1,851	4,101
December	3,523	2,877	3,483	3,491
Total.	47,666	47,038	35,396	41,179
Greatest rain in 12 hours	9,26		Greatest rain in one day, Oct. 22, 1785,	
Greatest rain in 2 hours June 28, 1750,	5,30		5,217	

During three months in the year, this part of America is covered with snow. On the mountains the snow is generally from two and an half to four and an half feet deep; and does not go off until after the middle of April. In the lower grounds, the snow for the most part, is from one, to two and an half feet deep; and remains until about the twentieth of March.... The advantage derived to the earth from the quantity and duration of the snow, is every where apparent. As soon as it is melted on the mountains, the earth appears to be greatly fertilized: the spring comes on immediately; and the vegetables of every kind are green and flourishing. With a very little cultivation, the earth is prepared for the reception of the seed; and the vegetation becomes extremely quick and rapid.

The effects being so apparent, a general opinion seems to have taken place, that the snow communicates to the earth some nitrous salts or enriching substance which tends to increase its fertility. In February 1791, I melted as much snow as afforded six gallons of water. The snow was collected as it was falling: Being evaporated there remained eleven grains of calcarious earth, five grains of an oily substance, and two grains of saline matter. The fertilizing effect of snow, cannot therefore be derived from any nitrous salts, which it receives or contains when it is falling through the atmosphere. Suspecting it might acquire some saline mixtures by laying on the earth, January 30, 1792, in an open field covered with grass, I collected as much of the snow which lay next to the earth,

as produced six gallons of water. This snow spread over an area of sixteen square feet, and had lain upon the ground fifty nine days. Upon evaporating the water there was not more saline matter, or calcarious earth, than in the former experiment ; but a much larger quantity of oily substance. The oil was of a dark brown colour not inflammable, and weighed four pennyweights and nine grains, troy weight. From the former experiment, it appears that the biggest part of this oily matter accrued to the snow after it had fallen upon the earth : And to this oily substance, is probably to be imputed that dirty or sooty appearance, which the snow is generally observed to have, after it has begun to thaw. If the snow which I removed contained the same quantity of oil as that which I examined, a considerable nutriment might be preserved to the earth from this cause. The depth of the snow was thirty inches : The depth of that quantity which I collected to melt, as nearly as I could determine, was three inches. This will give two ounces, three pennyweights and eighteen grains, as the quantity of mucilaginous matter, which would have descended upon sixteen square feet of the earth, from the quantity of snow that was then upon the ground.

While the snow thus prevents all waste from the surface of the earth, it performs another and more important office, that of preserving its internal heat. The internal parts of the earth through the territory of Vermont, are heated to about the forty fourth degree of Fàrenheit's thermometer. When the heat of the atmosphere is greater than this, a part of that

heat will flow into the earth, and thus the heat of the earth will be increased. When the heat of the atmosphere is less than forty four degrees, the heat will flow out of the earth into the atmosphere, and in this way the internal parts of the earth will be losing their heat, or becoming colder. This is the case during the winter months ; or rather, from the middle of October, to the beginning of April. Hence the surface of the earth when exposed to the atmosphere, becomes frozen to a greater or less depth, according to the degree and duration of the cold. The snow tends very much to prevent this. By covering over the surface of the ground a considerable depth, the snow by its nature and colour, prevents the internal heat of the earth from flowing into the colder atmosphere, and the atmosphere from coming into contact with the earth. In this way while the earth is covered with a deep snow, its heat is preserved, and the surface, in the coldest weather, is kept warm. To ascertain to what degree the heat of the earth was affected, by the quantity of snow that lay upon it, on January 14, 1791 (an extreme cold winter) I dug through the frozen surface in a plain open field, where the snow had been driven away by the wind, and found the ground was frozen to the depth of three feet and five inches. In the woods, where the snow was three feet deep, I found on the same day the heat of the earth, six inches below the surface, was thirty nine degrees. The surface of the earth had been frozen to this depth, before it was covered with snow. The frost was not only extracted, but the surface of the earth

was heated seven degrees above the freezing point, in consequence of the snow with which it was covered.

This will help us to account for the beneficial effects, which are derived from the snow, in all cold climates. Different degrees of heat are necessary, for the preservation and growth of different vegetables. None of them will grow when they are frozen ; and most of them will perish when the cold at their roots is very severe. A thick covering of snow prevents these effects. The earth is kept open, and the roots of the vegetables are preserved comparatively warm. The snow is continually melting at the surface of the earth : It moistens, and enriches the soil ; keeps off the frost and wind, and prevents all evaporation from the surface of the earth. The earth thus prepared by heat and moisture, and a collection of all its effluvia, is in a fit state for that sudden and rapid vegetation, which takes place in all cold climates, immediately upon the melting of the snow.

The weather is generally fair in the winter ; and often, with an hazy atmosphere. The snows are frequent, but they generally come in small quantities, and are over in one or two hours : They are not attended with high winds, or heavy storms ; but they come from all points of the compass, except the east ; very frequently from the west, and northwest. Hail is not uncommon in the winter, but rain is not frequent. About the middle of March the spring commences. The winds and weather are then very unsettled until the beginning of April. In April and May the weather becomes mild and

pleasant, attended with frequent showers. In the summer months the weather is generally fair, clear and settled. The winds are mostly from the south, and southwest ; the heat in the middle of the day is often very uncomfortable, but the nights are almost ever cool and pleasant. From the beginning of September, until the middle of October, we have commonly the most agreeable season, with moderate westerly winds, and a clear sky. The latter part of October and November, are generally cold, wet and uncomfortable ; attended with frequent rains, some snow and high winds.

THUNDER and lightning are common in the months of May, June, July and August ; but seldom in the other months. The Aurora Borealis is the most common in the months of March, September and October ; but it is not unusual at other times of the year. Heavy and long storms of snow, or rain, are scarcely ever known : But sudden and violent whirlwinds or hurricanes sometimes arise, and do much damage in the fall ; but we seldom receive any injury from the hail. Annual courses of meteorological observations properly reduced, will afford the most complete information of the weather, and meteors, in the different parts of North America.

I

THE State of the WEATHER at sundry places in North America, deduced from annual Observations.

Place.	Time.	Fair.	Cloudy.	Rain.	Snow.	Hail.	Fog.	Thunder	Aur. Bor.	Hazy.	No. of Obser.
Maryland,	1753 and 1754	314	179	145	21	7	10	39	—	——	493
Philadelphia,	1748 and 1749	235	141	83	21	2	11	13	7	——	376
Cambridge,	1784 to 1788	564	531	71	25	4	16	22	22	——	1095
Rutland,	1789	452	643	89	41	7	37	15	21	——	1095
Un.Vt. Burlington	1803 to 1808	1025	676	289	117	—	19	45	27	——	1701
Quebec,	1743 and 1744	277	128	88	32	4	14	7	—	——	405
Hudson's Bay,	1768 and 1769	360	432	36	76	25	31	4	5	155	792

THE above accounts are designed to exhibit a just view of our climate. But instead of remaining fixed and settled, the climate is perpetually changing and altering, in all its circumstances and affections: And this change instead of being so slow and gradual, as to be a matter of doubt, is so rapid and constant, that it is the subject of common observation and experience. It has been observed in every part of the United States; but is most of all sensible and apparent in a new country, which is suddenly changing from a state of vast uncultivated wilderness, to that of numerous settlements, and extensive improvements. When the settlers move into a new township, their first business is to cut down the trees, clear up the lands, and sow them with grain. The earth is no sooner laid open to the influence of the sun and winds, than the effects of cultivation begin to appear. The surface of the earth becomes more *warm* and *dry*. As the settlements increase, these effects become more general and extensive: the cold decreases, the earth and air become more warm; and the whole temperature of the climate, becomes more equal, uniform and moderate. At the same time the lands and roads become more dry and hard: the stagnant waters disappear, small streams and rivulets dry up, and the redundant waters are carried off. The number and quantity of the snows decrease; the winds receive new directions, and the weather and seasons become much altered. These changes every where attend the cultivation of the country; and have formed a remarkable change of climate in those states, which have been long settled.

In this change of climate, the first effect which is generally observed, is an alteration in the temperature. The cold of the winters decrease; the rivers are not frozen so soon, so thick, or so long, as they formerly were; and the effects of extreme cold, in every respect, appear to be diminished. A remarkable change of this kind, has been observed in all the settled parts of North America. The bays and rivers in New England, are not frozen so hard, or so long, as they were at the first settlement of the country.* At the first settlement of Philadelphia, the river Delaware was commonly covered with ice, about the middle of November, old style.† It is not now commonly covered with ice, until the first week in January. Similar observations have been made with regard to the ice in Hudson's river.‡ The baron *Lahontan* gave this account of the river St. Lawrence, at Quebec, in 1690: "I put to sea the twentieth of November, new style, the like of which was never seen in that place before. The ice had covered the river on the thirteenth and fourteenth of November, but was carried off by a sudden thaw."‖ The river is not frozen over now until the latter end of December, or the beginning of January. The ancient people at Quebec, in 1749, informed Mr. Kalm, that the winters in Canada were formerly much colder, than they were then.§ Similar observations have been made in almost every part of North

* New England's Prospect, by W. Wood; written in 1633, p. 4.
† Kalm's Travels, Vol. I. p. 410.
‡ Smith's History of Newyork.
‖ Voyages to North America, p. 165.
§ Kalm's Travels, Vol. II. p. 382.

America, where settlements and cultivation have taken place.

ALTHOUGH the general effect has been every where apparent, it is not an easy thing to ascertain the *degree*, to which the temperature has changed, in any particular place. When our ancestors first came into America, thermometers were not invented: And they have not left us any accurate meteorological remarks or observations, from which we can determine the exact degree of cold, which prevailed in their times. Upon looking over the most ancient writers of New England, the only account I have found, which will afford any distinct information upon this subject, is the following passage; referring to years previous to 1633. "The extremity of this cold weather lasteth but for two months, or ten weeks, beginning in *December*, and breaking up the tenth day of *February* (21st new stile) which hath become a passage very remarkable, that for ten or a dozen years, the weather hath held himself to his day, unlocking his icy bays and rivers, which are never frozen again the same year, except there be some small frost until the middle of *March*."* The winter is less severe now in several respects: The extremity of the cold weather does not come on so soon by several weeks; the bays at Boston, instead of being annually covered with ice, are but seldom frozen to this degree; and they do not continue in this state a longer time than eight or ten days. In the year 1782, the harbour between Boston and Charlestown was frozen to such a degree, that

* Wood's Prospect, p. 4.

horses and sleighs passed over the ice, for five or six days. This was the beginning of such an effect, as that which is mentioned in the ancient account. The ice became fixed and permanent on February second ; and continued in this state until February 10th. During that time I found the lowest degree of Farenheit's thermometer to be —9 degrees ; the greatest degree was 28 degrees : and the mean heat was 13 degrees. It may be presumed therefore, that the freezing of the bays of which Wood speaks, could not have taken place, or continued, in a less degree of cold than this. This will give us 13 degrees of Farenheit's thermometer, as the mean heat which took place during eight or ten weeks of the winter, so far back as the year 1630. By the meteorological observations which I made in the University at Cambridge for seven years, from 1780 to 1788, I found the mean heat in the month of December was 29 degrees 4 tenths ; in January it was 22 degrees 5 tenths ; and in February it was 23 degrees 9 tenths. These numbers express the present temperature of the winter at Boston. If this computation be admitted, the change of temperature in the winter, at Boston, from the year 1630 to the year 1788, must have been from ten to twelve degrees.

A permanent alteration in the temperature of the climate or atmosphere, supposes an alteration equally great and permanent, in the heat of the earth. Whether the heat of the earth is thus affected by cultivation, and what will be its effects, I endeavoured to ascertain in the following manner. On the 23d of May, 1789, I sunk

a thermometer to the depth of ten inches below the surface of the earth. Upon repeated trials the quicksilver stood at fifty degrees : this was in a level open field, used for pasture or grazing, and fully exposed to the sun. The same experiment was then made in the woods, where the surface of the earth was covered with trees, and never had been cultivated. To ascertain the gradual increase of heat at each place, the observations were often repeated. The result was as follows.

Time.		Heat in the Pasture.	Heat in the Woods.	Difference.
May	23	50°	46°	6°
	28	57	48	9
June	15	64	51	13
	27	62	51	11
July	16	62	51	11
	30	65 1-2	55 1-2	10
August	15	68	58	10
	31	59 1-2	55	4 1-2
September	15	59 1-2	55	4 1-2
October	1	59 1-2	55	4 1-2
	15	49	49	0
November	1	43	43	0
	16	43 1-2	43 1-2	0

The effect of cultivation with regard to the heat of the earth, so far as it can be collected from these experiments, appears to be this : Exposing the land to the full force of the solar rays in this latitude, will produce an heat at the depth of ten inches below the surface, ten or eleven degrees greater than that which prevails in the uncultivated parts of the country ; and

this effect continues while the solar rays are sufficient to increase the heat of the earth. This additional heat in the earth, will be sufficient to produce the same alteration in the temperature of the air ; for whatever degree of heat prevails in the earth, nearly the same will be communicated to the lower parts of the atmosphere. Thus the earth and the air, in the cultivated parts of the country, are heated in consequence of their cultivation, ten or eleven degrees more, than they were in their uncultivated state : It should seem from these observations that the effect, or the degree of heat produced by cultivation, is the same with the change of climate, that has taken place in the eastern part of Massachusetts.

Another remarkable effect which makes part of the change of climate, and always attends the cultivation of the country, is an alteration in the moisture or wetness of the earth. As the surface of the earth becomes more warm, it becomes more dry and hard, and the stagnant waters disappear. Alterations of this kind, have been common and great, in all the ancient settlements in the United States. Many of the small streams and brooks are dried up : Mills, which at the first settlement of the country, were plentifully supplied with water from small rivers, have ceased to be useful. Miry places, and large swamps, are become among the richest of our arable lands. In the new settlements the change is effected in two or three years : Fields of corn and wheat are attended with the most rapid vegetation, and the greatest increase, in lands, where the waters five or six years ago,

were stagnant, and in such quantities as to be spread over the largest part of the ground. One of the first effects of cultivation is the dispersion of these waters, and a change in the soil, from the appearance of a swamp, to that of a dry and fertile field.

THERE are two ways in which cultivation operates, to produce this effect. By the cutting down of the trees, the dispersion of a vast quantity of fluid, emitted by their evaporation, is prevented ; and by laying the lands open to the influence of the sun and winds, the evaporation of the stagnant waters is greatly promoted. The effect of the first, from experiments which will be related when the vegetable productions are considered, may be estimated at three thousand and eight hundred gallons of water thrown off from the trees on one acre, in the space of twelve hours, in hot weather. To ascertain the effect which might arise from the latter, on June 27th, 1789, a fair, calm and hot day, I placed a china saucer on the ground in the woods, where it was covered from the solar rays by the trees, the leaves of which at the height of ten or twelve feet, were very thick. Another saucer in all respects similar to this, was placed on the ground in an open field adjoining, where it was fully exposed to the wind and sun. I poured into each of them equal quantities of water ; at the end of three hours the evaporation from the latter, was to that from the former, as six eight tenths to one. With regard then to the moisture or wetness of the country, it appears that settlement and cultivation will be sufficient to prevent the discharge

of three thousand and eight hundred gallons of water, over one acre of land, in 12 hours, during the hot weather; and at the same time to effect the dispersion of 6 times and 8 tenths as much water from the surface of the earth, as would have been dispersed in its uncultivated state. If we may judge upon a matter which cannot be reduced to exact calculation, it should seem that the cause was here equal to the effect.

A change in the climate hath also been manifest in the apparent decrease of the snow, in all the ancient cultivated parts of the United States. Whether there has been any alteration in the annual quantity of rain in any part of America, we cannot determine, for want of meteorological observations; but a great decrease of snow has been observed in all the ancient settlements. At the first settlement of New England, the earth was generally covered with snow for more than three months in the year. It began to fall in large quantities by the first of December, and seldom went off until some time in March. This is yet the case in the inland and mountainous parts of the country. The snow covers them for three months, and is scarcely ever carried off by a thaw until the spring comes on. In those parts of the country which have been long settled and cultivated, the snows have been declining for many years. They are neither so frequent, deep, or of so long continuance, as they were formerly: And they are yet declining very fast in their number, quantity, and duration. This event is derived from the change of temperature, which has taken place in the atmosphere; and probably will keep pace exactly

with it. There has also been an apparent alteration in the direction of the winds. The prevalency and extent of the westerly winds, seem to be abating: Or rather the easterly winds are certainly increasing in their frequency and extent. These winds are now very frequent in the spring, in all that part of the country, which lies within sixty or seventy miles of the sea coast. Half a century ago, the easterly winds seldom reached farther than thirty or forty miles from the sea shore. They have now advanced as far as the mountains, which are generally eighty or an hundred miles from the ocean. As the country becomes settled and cleared, they are found to advance more and more, into the internal parts of the country. It can hardly be doubted, but that this event is owing to the increasing cultivation of the country. As the woods are cut down, the earth and atmosphere become more heated than the ocean: The direction of the winds will of course be from the sea, towards the land. As the country becomes more settled and cleared, it is probable these winds will continue to advance further towards the west.

The same causes which produce a change in the heat of the earth, in its wetness, in the snow and winds, will produce as great a change in the weather and seasons. While the state of a country remains unaltered, the general course and appearance of nature will be the same, from one age to another. Summer and winter, spring and fall, the productions of the earth, the state of the air and weather, will be subject to but little annual alteration or change. But when

the whole face and state of a country are changing, the weather and seasons will also change with them. This is an event that has already taken place in the most ancient and cultivated parts of America. When our ancestors first came into New England, the seasons and weather were uniform and regular. The winter set in about the beginning of December, old style, and continued until the middle of February. During that time the weather was generally fair, and cold, and without much change. Towards the end of February the winter generally broke up. When the spring came on, it came on at once ; without repeated and sudden changes from heat to cold, and from cold to heat. The summer was extremely hot and sultry, for a month or six weeks ; but it was of a short duration. The autumn commenced about the beginning of September ; and the harvest of all kinds was gathered by the end of that month. A very different state of things now takes place, in all that part of New England, which has been long settled. The seasons are much changed, and the weather is become more variable and uncertain. The winter is intermixed with great and sudden thaws, and is become much shorter. The changes of weather and temperature, are great and common in the spring ; and at that season there is generally an unfortunate fluctuation between heat and cold, greatly unfavorable to vegetation, and the fruits of the earth. The summers are become more moderate in respect to the extreme heat of a few weeks ; but they are of a much longer duration. The autumn commences, and ends,

much later than formerly : the harvest is not finished until the first week of November ; and the severity of winter does not commonly take place, until the latter end of December. But the whole course of the weather is become more uncertain, variable and fluctuating than it was in the uncultivated state of the country.

It is in these particulars, the change that has taken place in the heat of the earth, in its wetness, in the snow, winds, weather and seasons, that the change of climate in North America has principally appeared. That this change of climate is much connected with, and greatly accelerated by the cultivation of the country, cannot be doubted. But whether this cause is sufficient to account for all the phenomena, which have attended the change of climate in the various parts of the earth, seems to be uncertain.*

* Appendix No. II

CHAPTER V.

VEGETABLE PRODUCTIONS....*Forest Trees, Esculent and Medicinal Vegetables. Remarks on the Magnitude, Number, Age, Evaporation, Emission of Air, Heat, and Effect of the Trees.*

WHEN the Europeans first took possession of North America, it was one continued forest, the greatest upon the earth. The country was every where covered with woods, not planted by the hand of man ; but derived from, and ancient as the powers of nature. The great variety of plants and flowers, the immense numbers, dimensions, and kinds of trees, which spread over the hills, valleys and mountains, presented to the eye, a most magnificent and boundless prospect. This is still the case with the uncultivated parts of the country.

MUCH the largest part of Vermont is yet in the state, in which nature placed it. Uncultivated by the hand of man, it presents to our view a vast tract of woods, abounding with trees, plants, and flowers, almost infinite in number, and of the most various species and kinds. It would be the employment of many years, to form a complete catalogue of them. I shall not attempt to enumerate any, but those which are the most common and useful.

FOREST TREES.

THE Trees which are the most large and common are the

White Pine. *Pinus Strobus.*

Yellow Pine. *Pinus Pinea.*
Pitch Pine. *Pinus Tæda.*
Larch. *Pinus Larix.*
Hemlock. *Pinus Abies.*
White Spruce. } *Pinus Canadensis.*
Black Spruce. }
Fir. *Pinus Balsamea.*
White Maple. *Acer Negundo.*
Red Maple. *Acer Rubrum.*
Black Maple. *Acer Saccharinum.*
White Beech. } *Fagus Sylvatica.*
Red Beech. }
White Ash. *Fraxinus Excelsior.*
Black Ash. *Fraxinus Americana.*
White Birch. *Betula Alba.*
Black Birch. *Betula Nigra.*
Red or Yellow Birch. *Betula Lenta.*
Alder. *Betula Alnus.*
White Elm. } *Ulmus Americana.*
Red Elm. }
Black Oak. *Quercus Nigra.*
White Oak. *Quercus Alba.*
Red Oak. *Quercus Rubra.*
Chesnut Oak. *Quercus Primus.*
White Hiccory, or Walnut. *Juglans Alba.*
Shagbark. *Juglans Alba, cortice squamoso.*
Butternut. *Juglans Alba, cortice cathartico.*
Chesnut. *Fagus Castanea.*
Buttonwood. *Plantanus Occidentalis.*
Basswood, or lime tree. *Tilia Americana.*
Hornbeam. *Carpinus Betulus.*
Wild Cherry, several species.
Sassafras. *Laurus Sassafras.*
White Cedar. *Thuja Occidentalis.*
Red Cedar. *Juniperus Virginiana*

White Poplar, or Aspen. *Populus Tremula.*
Black Poplar, or Balsam. *Populus Nigra.*
Red Willow. *Salix.*
White Willow. *Salix Alba.*
Hackmatack.

ESCULENT.

THE following are small Trees, Shrubs or Vines, valuable on account of their salubrious and pleasant Fruit.

Red Plumb.
Yellow Plumb. } *Prunus Sylvestris.*
Thorn Plumb.

Black Cherry.
Red Cherry. } *Cerasus Sylvestris.*
Choke Cherry.

Juniper. *Juniperus Sabina.*
Hazlenut. *Corylus Avellana.*
Black Currant. *Ribes Nigrum.*
Wild Gooseberry. *Ribes Glosularia.*

Whortleberry.
Bilberry.
Blueberry } *Vaccinium Corymbosum.*
Chokeberry,

Partridgeberry. *Arbutus Viridis.*
Pigeonberry. *Cissus.*
Barberry. *Berberis Vulgaris.*
Mulberry. *Morus Nigra.*
Black Grape. *Vitis Labrusca.*
Fox Grape. *Vitis Vulpina.*
Black Raspberry. *Rubus Idæus.*
Red Raspberry. *Rubus Canadensis.*
Upright Blackberry. *Rubus Fruticosus.*
Running Blackberry. *Rubus Moluccanus.*
Brambleberry. *Rubus Occidentalis.*

Cranberry.
Bush Cranberry. } *Vaccinium oxycoccos.*
Strawberry. *Fragaria Vesca.*
Dewberry. *Rubus Cæsius.*
Cloudberry. *Rubus Chamæmorus.*

These fruits are in great abundance in the uncultivated parts of the country; but they seem to arrive to their highest perfection of numbers, magnitude and richness, in the new fields and plantations. There are other vegetables which are also *esculent*, and valuable, chiefly on account of their *roots* or *seeds*. Among these are the

Artichoke. *Helianthus Tuberosus.*
Ground nut. *Glicine Apios.*
Long Potatoe.
Red Potatoe. } *Convolvulas Batatas.*
Wild Leek.
Wild Onion.
Wild Oat. *Zizania Aquatica.*
Wild Pea.
Wild Hop. *Humulus Lupulus.*
Indian Cucumber. *Medeola.*

MEDICINAL.

Many of the vegetables which are indigenous to this part of America, are applied to Medicinal purposes. Of this nature are the

Bitter Sweet. *Solanum.*
Angelica. *Angelica Sylvestris.*
Black Elder. *Sambucus Nigra.*
Red Elder. *Viburnum Opulus.*
Sarsaparilla. *Aralia.*
Pettymorrel. *Aralia Nigra.*

Solomon's Seal. *Convallaria.*
Maiden Hair. *Adianthus Pedatus.*
Arsmart. *Polygonum Sagittatum.*
Wild Rose. *Rosa Sylvestris.*
Golden Thread. *Nigella.*
Mallow. *Malva Rotundifolia.*
Marshmallow. *Althæa.*
Lobelia, several species.
Senna. *Cassia Ligustrina.*
Clivers. *Gallium Spurium.*
Blue Flag. *Iris.*
Sweet Flag. *Acorus.*
Skunk Cabbage. *Arum Americanum.*
Garget. *Phytolacca Decandra.*
Blood Root. *Sanguinaria.*
Pond Lily. *Nymphæa.*
Elecampane. *Inula.*
Black Snake Root. *Actea Racemosa.*
Seneca Snake Root. *Polygala Senega.*
Pleurisy Root. *Asclepias Decumbens.*
Liquorish Root.
Dragon Root. *Arum.*
Ginseng. *Panax Trifolium.*

Ginseng was formerly esteemed a plant indigenous only to China and Tartary. In 1720, it was discovered by the Jesuit *Lafitan*, in the forests of Canada; and in 1750, it was found in the western parts of New England. It grows in great plenty and perfection, in Vermont. The root has many virtues; but we do not find them to be so extraordinary, as the Chinese have represented. It was a valuable article in the commerce of Canada in the year 1752, and large quantities were purchased in this state but

a few years ago ; an injudicious method of collecting, curing and packing it, has greatly injured its reputation ; this, with the large quantities in which it was exported, have nearly destroyed the sale.

To this account of medicinal plants, it may not be improper to subjoin those, which in their natural state, are found to operate as *poisons ;* the most of which, by proper preparations, become valuable medicines. Of these we have the

Thorn Apple. *Datura Stramonium.*
Henbane. *Hyoscyamus Niger.*
Nightshade. *Solanum Nigrum.*
Ivy. *Hedera Helix.*
Creeping Ivy. *Rhus Radicans.*
Swamp Sumach. *Rhus Toxicodendrum.*
Baneberry. *Actæa Spicata.*
White Hellebore. *Veratrum Album.*

In addition to these, there is a great variety of plants and flowers, the names and virtues of which, are unknown. Some of our vegetables deserve a particular description, on account of their uncommon properties : Thus, the Bayberry *(myrica cerifera)* is distinguished by a fine perfume, and a delicate green wax. The Prickly Ash is valuable for its uncommon aromatic properties. The Witch Hazel *(hamamelis)* is endowed with the singular property of putting forth its blossoms, after the frost has destroyed its leaves. The Indian Hemp *(asclepias)* may be wrought into a fine, and strong thread. The Silk Grass another species of the *asclepias,* contains a fine soft down, which may be carded and spun into an excellent wickyarn. The ber-

ries of the common Sumach *(rhus)* are used to great advantage in medicinal applications, and in several kinds of dyes. It would be a very useful, but a laborious employment, for the botanists to give to the world an enumeration, and scientific description of our indigenous vegetables. The *Flora Americana*, would be the most valuable addition, that could be made to the works of the celebrated *Linnæus*: But it cannot be completed without the united assistance of wealth, genius, time and labour.

To this imperfect catalogue of our vegetables, I shall add some remarks on the magnitude, number, age, evaporation, emission of air, heat, and effect of the trees.

MAGNITUDE. The magnitude to which a tree will arrive, depends upon the nature of the tree, and of the soil. The following are the dimensions of such trees as are esteemed large ones of their kind, in this part of America. They do not denote the greatest, which nature has produced of their particular species,* but the greatest of those which are to be found in most of our towns.

Trees.	*Diameter.*		*Height.*
	Feet.	Inch.	Feet.
Pine,	6	0	247
Maple,	5	9	
Buttonwood,	5	6	
Elm,	5	0	From 100 to 200 Feet.
Hemlock,	4	9	
Oak,	4	0	
Basswood,	4	0	
Ash,	4	0	
Birch,	3	0	

* A white Pine was cut at Dunstable in Newhampshire, in 1736, the diameter of which was seven feet, eight inches.
Douglass' Summary, Vol. II. p. 53.

Number. The number or thickness of the trees, seems to depend chiefly on the richness of the soil. In some parts of the country they are so thick, that it is with difficulty we can ride among them. In other places, they have resolved themselves into trees of large dimensions, which are generally at the distance of eight or ten feet from each other. On one acre, the number of the trees, is commonly from one hundred and fifty to six hundred and fifty ; varying in their number, according to the richness of the soil, and the dimensions the trees have attained. Estimating a cord to be four feet in height, and width, and eight feet in length, the quantity of wood which is generally found on one acre, is from fifty to two hundred cords ; where the large pines abound, the quantity of wood is much larger than what is here stated ; but these trees are never measured as cord wood, but always applied to other purposes.

Age. There is a circumstance attending the growth of trees, which serves to denote their age, with great accuracy. The body of a tree does not increase by an universal expansion of all its internal parts, but by additional coats of new wood : And these are formed every year, by the sap which runs between the bark, and the old wood. When a tree is cut down, this process of nature becomes apparent in the number of parallel circles, or concentric rings, which spread from the centre to the circumference of the tree. In many observations made by others, and by myself, upon trees whose ages were known, the number of these circles was found to agree exactly with the age of the tree. By

this method of computation, I have found the pine to be the most aged tree of our forest, several of which were between three hundred and fifty and four hundred years of age. The largest trees of other species, are generally between two and three hundred years. I am since informed by James Whelpley, Esq. of Hubbardton that this is not correct; that he has made many observations of this kind, and has always found the Oak to be the most aged tree of the forest. By their rings or circles some of these trees appeared to him to be more than one thousand years of age; and that some of the pines were of more than 600 years growth. In the more advanced periods of vegetable life, this method of computation often fails: The decays of nature generally begin in the central, which are the most aged parts. From them, the mortification gradually extends to others; and thus, the internal parts of the tree, die in the same order in which they were produced; the progress of death, regularly and steadily following the same order and course, which had been observed in the progress of life. In this state of a tree, no computation can be made of its age: But it seems most probable, that the time of its natural increase and decrease, are nearly the same; and that the natural period of vegetable life, is double to that, which the tree has attained, when it first begins to decay at the heart.

Evaporation. Besides the growth, there are other processes carried on by nature in vegetables, of which we have no suspicion, until their effects become apparent. This is the case

with the evaporation which takes place from the woods, during the summer months. Every tree, plant and vegetable, is then pouring into the atmosphere, an amazing quantity of fluid. On the 12th of June, 1789, I put the end of one of the limbs of a small maple tree, into a bottle containing about one pint. That part of the limb which was within the bottle, contained two leaves, and one or two buds. The mouth of the bottle was stopped with beeswax, that no vapour might escape. In five or six minutes, the inside of the bottle was clouded, with a very fine vapour; and in about half an hour, small drops began to collect on the sides, and run down to the bottom. At the end of six hours, I weighed the water which had been collected in the bottle during that time, and found it amounted to sixteen grains, troy weight. The tree on which this experiment was made, was eight inches and an half in diameter, and thirty feet in height. To make an estimate of the quantity of water, thrown off from this tree into the atmosphere, in a given portion of time, I endeavoured to ascertain the number of leaves which it contained. With this view (after I had made some other experiments) I had the tree cut down; and was at the pains to count the leaves, which it contained: the whole number amounted to twenty one thousand one hundred and ninety two: Admitting the evaporation to be the same from the other leaves of the tree, as it was from those on which the experiment was made, the quantity of water thrown off from this tree in the space of twelve hours, would be three hundred and thirty nine thou-

sand and seventy two grains. Upon examining the number and dimensions of the trees, which covered the ground where I made the experiment, I think it would be a moderate computation, to estimate them as equal both in magnitude and extent, on every square rod, to four such trees as that which I had examined. This will give six hundred and forty such trees, for the quantity of wood contained on one acre. This estimation is less than the quantity of wood, which is generally found upon one acre of land in this part of America. The weight of one pint of water, is one pound avoirdupoise, or seven thousand grains, troy weight; and eight such pints make one gallon. Making the calculation upon these principles, it will be found that from one acre of land thus covered with trees, three thousand eight hundred and seventy five gallons of water are thrown off and dispersed in the atmosphere, in the space of twelve hours.

This computation, will not appear extravagant to those, who have seen the great quantity of juice, which naturally flows out of some of our trees, when they are tapped in the spring. A man much employed in making maple sugar, found that for twenty one days together, one of the maple trees which he tended, discharged seven gallons and an half each day. A large birch which was tapped in the spring, ran at the rate of five gallons an hour, when first tapped; eight or nine days after, it was found to run at the rate of about two gallons and an half per hour; and at the end of fifteen days, the discharge continued in nearly the same quantity.

The sap continued to run four or five weeks, and from the remarks which were made, it was the opinion of the observer, that it must have yielded as much as sixty barrels.

The consequence of this waste of the juices was the death of the tree, the ensuing summer. I have this account from the Hon. *Paul Brigham*, Esq. These accounts serve to show, what a quantity of fluid, is naturally contained in some of our trees; and from a source so plentiful, a copious evaporation might naturally be expected.

Emission of Air. Another curious operation, which nature carries on in vegetables, of the highest use, but wholly invisible to us, is the emission of a large quantity of air. The tress, vegetables and flowers, while they are discharging a large quantity of water into the atmosphere, are, at the same time emitting or throwing off a much larger quantity of air. On the 15th of June, 1789, I put the same part of the maple tree into a bottle, as I had done in the experiment of June 12th. The bottle, with the limb of the maple thus enclosed, was then filled up with water; and immersed in a large drinking glass, which had been filled before: In this situation the bottle was inverted, and fixed so as to have its mouth about three inches under the surface of the water, in the drinking glass. In fifteen minutes, air bubbles began to appear around the leaves of the maple; and soon after to ascend to the upper part of the bottle, and collect into large bubbles; which, as they increased, resolved themselves into one. At the end of six hours, I found the quantity of water which had been forced out of the bottle,

by the air which was collected in it, amounted to sixty one grains. The quantity of *air* therefore, estimated by its bulk, which was emitted from the limb of the tree, was to the quantity of *water* thrown off from the same limb, as sixty one to sixteen. Making the calculation in the same manner as before, this will give fourteen thousand seven hundred and seventy four gallons, as the quantity of air, thrown off in twelve hours, from one acre of land, thus covered with trees. The purity and salubrity of this air is as remarkable as the quantity of it. It has been found that an animal will live five times as long in this kind of air, as in common air of the best quality. The purity of the atmosphere, is constantly impaired by the respiration of animals, by combustion, the putrefaction of bodies, and by various other causes. In such ways, the air over large and populous cities, is so greatly and constantly corrupted, that it would soon become unwholesome and noxious to the inhabitants, if it was not removed, or purified. Nature has made abundant provision for this purpose, in the immense quantities of air, which new countries supply. The trees and vegetables perpetually produce it, in large quantities, and in the purest state ; and the winds carry it from one country to another, where it is most wanted.

HEAT. The principle by which these operations are carried on, and which seems to have the greatest effect in vegetation, is heat. Different vegetables require different degrees of heat, or different climates, to give them their greatest degree of increase, and perfection.

All of them cease to grow, when their roots are in a state of congelation. As soon as the warmth of the spring comes on, the sap begins to ascend in their trunks, and branches : A fermentation takes place in all their juices, and the vegetation becomes more or less rapid, as the heat of the season advances. In Vermont, about the tenth of May, the Maple, which is one of the most numerous and forward trees of the forest, begins to put forth its leaves. In one or two days after, the whole body of the woods, appear of a beautiful light green ; and are constantly growing of a darker colour, for ten or fifteen days, when the darkest shades become fixed. During this period, the juices of the trees appear to be in a state of high fermentation, their internal heat increases, and the effects of their vegetation appear in an infinite variety of buds, leaves and flowers. To ascertain the degrees of heat, in different trees, at different times of the year, and to mark their effects on the leaves, and fruits, the following experiments were made. With an auger, of one inch diameter, I bored an hole twelve inches long, into the body of the tree : In this hole, I enclosed a thermometer of Farenheit's scale, stopping the orifice with a cork, until the quicksilver had acquired the degree of heat, which prevailed in the internal part of the tree. The result of these experiments, is set down in the following table.

Time 1789.	Heat in a Maple.	Heat in a Birch.	Heat in a Pine.	Heat in an Ash.	Remarks on the state of the Trees.
May 26, 27, 28	58	60	60	60	Leaves of the Maple, about one sixth of their natural growth. The other trees just in their bud, without any leaves.
June 30	72	72	73 1-2	76	Leaves on each tree, fully grown.
July 30	70	67	69	68 1-2	No appearance of decay in the leaves.
Sept. 15	62	56	61 1-2	59 1-2	Leaves on the Maple, Birch, and Ash, begin to decay, and turn white.
October 16	45	48 1-2	46	47	Leaves of the Maple turned yellow, and begin to fall. Leaves of the Birch turned white, and dead; and about one half of them fallen. Leaves of the Ash, all fallen. Leaves of the Pine, green through the year.
November 16	43 1-2	43 1-2	43 1-2	43 1-2	No leaves on the Maple, Birch, or Ash. The heat of the trees become exactly the same with that of the earth, at the depth of ten inches below the surface.

From these observations it should seem, that the temperature or heat of trees, is not the same as that of the earth, or atmosphere; but is a heat, peculiar to this class of bodies. It is probably the same, in all trees of the same kind, in similar circumstances and situations. The degree and variations of it, seem to depend on the fermentation of the juices, and the state of vegetation. It is not improbable the heat of the same kind of trees, may be different, in different latitudes: Whether this is the case or not, can be known only by observations, made in different countries. This heat which prevails in trees, seems to be the great principle or agent, by which the two fluids of water and air, are

separated from one another, and emitted from the trees. The quantity of water evaporated from the trees on one acre, in twelve hours, we have found to be three thousand eight hundred and seventy five gallons: That of air, fourteen thousand seven hundred and seventy four gallons. Before the evaporation, both these fluids seem to have existed together in a fixed state; making a common mass, every where dispersed through the body, limbs, and leaves of the trees. When the heat of the internal parts of the trees, became from fifty eight to sixty degrees of Farenheit's thermometer, the buds were formed, the leaves put forth, and the one fluid, seems to have been separated, or formed into the two fluids, of water and air. It seems probable from this, that both these fluids had the same origin, that heat was the principle, or cause by which they were separated; and that about fifty eight, is the degree of heat, which is necessary to begin the separation of the air from the water.

Effect. The effect of this perpetual vegetation, growth, and decay of vegetables, is an extreme richness and fertility of soil. Neither destroyed or removed by the hand of man, the vegetable productions of the uncultivated parts of America, return to the earth by decay and death, and corrupt on the surface from which they grew. It is not only from the earth, but from the air and water, that trees and plants derive their nourishment, and increase: And where no waste has been occasioned by man or other animals, it is not impossible that the vegetables may return more to the earth, than they have taken from it; and instead of serving to im-

poverish, operate to render it more rich and fertile. Thus does the soil, in the uncultivated parts of the country, from age to age derive increase, richness and fertility, from the life, growth, death and corruption of her vegetables. This effect has been so great in America, that when our lands are first cleared of the wood, we always find a black, soft, rich soil, of five or six inches depth; wholly formed of decayed or rotten leaves, plants, and trees. The extreme richness of this factitious soil, produces a luxuriancy of vegetation, and an abundance of increase in the first crops, which exceeds any thing that can afterwards be procured, by all the improvements of agriculture.

Powers of Vegetable Life. The power with which nature acts in the productions of vegetable life, in this part of America, may be deduced from such circumstances as have been mentioned: From the immense extent of our forests; from the magnitude, number, and variety of our trees, and plants; from their rapid increase, and duration; and from the total want of sandy deserts, and barren places. These and other circumstances, denote an energy, a power in the vegetable life, which nature has never exceeded in the same climate, in any other part of the globe.

CHAPTER VI.

NATIVE ANIMALS. *An account of the Quadrupeds; with Observations on their Enumeration, Origin, Migration, Species, Magnitude, Disposition, and multiplying Power. The Birds, Fishes, Reptiles and Insects.*

THE uncultivated state of America was favourable to the productions of animal life. A soil naturally rich and fertile, and powers of vegetation extremely vigorous, produced those immense forests, which spread over the continent. In these, a great variety and number of animals had their residence. Fed by the hand and productions of nature, unmolested but by a few and unarmed men, the productions of animal life every where appeared, in the various forms of quadrupeds, birds, fishes, and insects; and their increase and multiplication, became quick and rapid.

QUADRUPEDS.

OF that species of animals which are known by the name of quadrupeds, America contains nearly one half: Of these about thirty six, are found in Vermont. Our forests afford shelter and nourishment for the moose, bear, wolf, deer, fox, wild cat, racoon, porcupine, woodchuck, skunk, martin, hare, rabbit, weasel, ermine, squirrel, mole, and mouse. In our rivers, ponds, and lakes, the beaver, muskrat, mink, and otter, are to be found in large numbers.

The largest animal which is known in Vermont is the Moose. It seems to be of the same species as the Elk; and in its general form, it resembles the horse. His head is large, the neck short; with a thick, short, and upright mane, the eyes are small, the ears are a foot long, very broad, and thick; under the throat, there is a fleshy protuberance; the nostrils are large; the upper lip square, and hangs over the lower. His horns are palmated, and when fully grown are about four or five feet from the head to the extremity: There are several shoots or branches to each horn, which generally extend about six feet in width from each other. The horns weigh from thirty to fifty pounds, and are shed every year. The hoofs of the Moose are cloven; his gait, is a long shambling trot; his course, very swift, and straight. When he runs, the rattling of his hoofs, is heard at a considerable distance; in miry places, his hoofs are spread several inches from one another; and it is with the greatest ease, that he leaps over the highest of our fences. The Moose is generally of a grey, light brown, or mouse colour. The food of this animal is grass, shrubs, the boughs and bark of trees, especially the beech, which they seem to prefer above all others, and a species of maple which is called moose wood. In summer, they keep pretty much in families. In the winter, they herd together to the number of twenty or thirty, in a company: They prefer the coldest places; and when the snow is deep, they form a kind of yard, consisting of several acres, in which they constantly trample down the snow, that they may more easily range

round their yard ; and when they cannot come at the grass, they live on the twigs and bark of the trees. Their defence is chiefly with their fore feet, with which they strike with great force. The female is less than the male, and generally without horns. The rutting season is in autumn : The female generally brings forth two at a birth, in the month of April, which follow the dam a whole year. One of these animals in Vermont, was found by measure, to be seven feet high. The largest, are estimated by the hunters, to weigh thirteen or fourteen hundred pounds.

The Bear is frequently to be met with in this part of America, and is always of a black colour. It is not an animal of the most fierce, and carnivorous disposition. There have been instances, in which children have been devoured by the bear ; but it is only when it is much irritated, or suffering with hunger, that it makes any attack upon the human race. At other times, it will destroy swine and young cattle, but has not been known to make any attack upon men ; but always aims to avoid their pursuit. The food of this animal is corn, sweet apples, acorns, and nuts. In the end of autumn, the bear is generally very fat, and chooses for the place of his retreat the hollow of a rotten tree, or some natural den, or cavern in the earth. In such a situation he uses no exercise, appears to be asleep, loses but little by respiration, and is always found without any provision ; and it is not until the warmth of the spring returns, that he leaves his retreat, or goes abroad in quest of food. This animal is valuable for its flesh,

grease, and skin. The female generally bears two cubs a year. The bear arrives to a great magnitude in this part of the continent. The largest, of which the hunters give us any certain information, weighed four hundred and fifty six pounds.

One of the most common and noxious of all our animals, is the Wolf. In the form of his body, the wolf much resembles the dog. He has a long head, a pointed nose, sharp and erect ears, a short and thick neck, with sharp and strong teeth. His eyes generally appear sparkling; and there is a mildness, and a fierceness in his looks. The colour of the wolf in Vermont, is a dirty grey; with some tinges of yellow about his ears, and legs. This animal is extremely fierce, sanguinary, and carnivorous. When a number of them associate, it is not for peace, but for war and destruction. The animal at which they most of all aim, is the sheep. When they can find a flock of these, they seem to delight in slaughter; tearing their flesh, and sucking their blood, after they are fully satisfied with the fat of their tender parts. They attack the deer, foxes, rabbits, and are enemies to all other animals; and their attacks are generally attended with the most horrid howlings. They generally flee before the face of the hunter; but when they have once tasted of human flesh, they become more fierce, and daring, and seem to be inflamed with greater fury. In such a state, there have been instances in Vermont, in which the wolves have ventured to make their attacks upon men; but they generally retire upon their approach. They are not often to be seen in the

day, but in the night venture into our yards, and barns. These animals are yet in great numbers, in this state ; they destroy many of our sheep, in the night ; and find a safe retreat in our woods, and mountains ; but are gradually decreasing, as our settlements increase, and extend. The wolf is a very prolific animal. The female is in season in the winter, but the male and female never pair. The time of gestation, is about three months and an half ; and the young whelps are found from the beginning of May, until the month of July. The hunters have sometimes found in their dens, a male, a female, and a litter of nine young whelps. One of the largest wolves in Vermont, weighed ninety two pounds. There is nothing valuable in these animals but their skins, which afford a warm and durable fur.

The Deer is one of our most common and valuable animals. In the spring he sheds his hair, and appears of a light red ; this colour gradually grows darker until autumn, when it becomes a pale, or cinerous brown ; and remains thus through the winter. His horns are slender, round, projecting forwards, and bent into a curve ; with branches or shoots on the interior side. These branches do not commence, until the deer is three years old ; from which period, a new one rises every year ; and by this circumstance, the hunters compute their age. These horns are cast every spring ; the new ones, in the course of a year, will grow two feet in length, and weigh from two to four pounds. The amorous season with these animals, is in the month of September. From

September to March, the bucks and does herd together ; early in the spring they separate, and the does secrete themselves in order to bring forth their young ; which generally happens in the month of April. The female generally bears two, and sometimes three, at a birth. The fawns are red, most beautifully spotted with white. They are easily tamed, and become as gentle and domestic as a calf. The deer is an animal of great mildness, and activity. They are always in motion ; and leap over our highest fences, with the greatest ease. The largest of which I have a particular account, weighed three hundred and eight pounds. The deer are numerous in Vermont ; and on account of their flesh and skin, are of much value. The reindeer is not to be found in this part of the continent. But there seems to be another species of the American deer, distinguished chiefly by its horns, and often by its colour. The horns of this deer are never extensive, broad, and branched, like those of the common deer : But they are round, thick, but little curved, and not more than ten or twelve inches in length. This species is generally larger than the other : Several of them have large white spots, and some have been killed which were wholly white

The Fox abounds much in this part of America. The form, disposition, and habits of this animal, are every where known. We have four kinds of foxes in Vermont.

The *Red Fox* bears upon a yellowish, or rather a straw colour. This is esteemed the common fox, and is the most frequently to be found. At its full growth in the fall, this animal weighs twenty pounds.

The *Grey Fox* resembles the other in form, and magnitude, and appears to differ from it only in colour, which is of a beautiful silver grey.

The *Cross Fox* resembles the other in form, and magnitude; but has a black streak, passing transversely from shoulder to shoulder; with another along the back, to the tail. The other parts of this animal are of a red, or more generally of a grey colour.

The *Black Fox* is the largest, and most valuable of all. The fur of this fox is the most fine, soft, and rich, of any. One of the largest of the black foxes, was found to weigh twenty three pounds.

The Fox is a very voracious animal; devouring all kinds of poultry, birds, and animals, which they can overcome. Flesh, fruit, honey, and every part of the farmer's dairy are devoured by him with great avidity. This animal is very prolific. The female is in season every year, in the winter; and generally produces in the month of April; the litter is generally from three to six.

The Catamount, seems to be the same animal, which the ancients called Lynx, and which is known in Siberia, by the name of Ounce. In the form of its body it much resembles the common cat, but is of a much larger size. It is generally of a yellow grey colour, bordering upon a red or sandy; and is larger than our largest dogs. This seems to be the most fierce and ravenous of any animal, which we have in Vermont. Some years ago, one of these animals was killed at Bennington. It took a large calf out of a pen, where the fence

was four feet high, and carried it off upon its back. With this load, it ascended a ledge of rocks, where one of the leaps, was fifteen feet in height. Two hunters found the cat upon an high tree. Discharging his musket, one of them wounded it in the leg. It descended with the greatest agility, and fury ; did not attack the men, but seized their dog by one of his ribs, broke it off in the middle, and instantly leaped up the tree again with astonishing swiftness, and dexterity. The other hunter shot him through the head, but his fury did not cease, but with the last remains of life. These animals have been often seen in Vermont ; but they never were very numerous, or easily to be taken. Of their fecundity, I have no particular information. On account of their fierceness, activity, and carnivorous disposition, the hunters esteem them the most dangerous of any of our animals. The weight of one of them, was estimated by the hunter, at one hundred pounds. The length of his body was about six feet, that of the tail, three ; the circumference of the body was two feet and an half, and the legs were about thirteen inches long.

What is called the Wild Cat, is an animal, in most respects similar to our common cats ; but different in its disposition, and dimensions. It is much larger, stronger, and fiercer, than any of our domestic cats ; and seems to be of the same disposition, and colour, as the wolf. One of the largest of them was found by the hunter, to weigh fifty seven pounds.

The Black Cat does not appear to be distinguished from the former, in any other respect

than its colour. It is altogether black, and seldom grows to so large a size, as the former. It seems to be of a distinct species ; is as fierce and ravenous as the other kind. These animals are frequently found in the woods ; very wild, extremely fierce in combat, of great activity and strength ; but never can be tamed, or made to associate with our common cats. They are valuable only on account of their furs. The black cat was called by the Indians, the *Wool-laneeg* : The largest of which I have any account, weighed twenty three pounds.

Another animal which does not greatly differ in appearance from a wild cat, has been called the *Wolverine*. The body of this animal is about two feet and an half in length. It has a short tail, and is of the same colour as the wolf. This animal is of a very fierce, and carnivorous disposition. Concealing himself among the rocks and bushes, or taking a station upon the limb of a tree, he watches for the approach of prey. If the deer, or the moose comes within his reach, he darts upon their backs, fastens upon their neck, and with great dexterity opens their jugular vein with his teeth. This animal is scarce, and not to be found but in the northern, and most uncultivated parts of the state. I have no account of its fecundity, magnitude, or other particulars.

The Racoon, in its shape or general form, resembles the fox, but has a larger body, with thicker and shorter legs. The feet have five long and slender toes, armed with sharp claws. The males have generally a large whitish stripe, and the females a smaller one, which runs across

the forehead. The tail is long, and round, with annular stripes in it. This animal dwells in the retired part of the woods, runs up the trees with great agility, and ventures to the extremes of the boughs. Its fur is thick, long, and soft; and of a dark grey colour. The weight of one of the largest in Vermont, was thirty two pounds. It is often found in hollow trees, and its flesh is excellent food.

The Porcupine, or Hedgehog, is not uncommon in Vermont. What is singular and most distinguishing in this animal, are the quills with which he is armed. These quills are about four inches in length; and of the size of the quills of a pigeon. When the porcupine is attacked by an enemy, he places his head between his fore feet, and erects these quills all around, in the form of an hemisphere. He has no power to eject them from his body, or dart them against his enemy, as has been frequently said. But they are so loosely inserted in his flesh, and of such a particular construction, that they are easily extracted, and like a barbed dart stick fast, and work themselves into the flesh of any animal that touches their extremities; nor can they be easily withdrawn, without tearing the flesh, but by incision. On this account they prove extremely dangerous to the dog, or to any other animal that makes an attack upon the porcupine. The colour of this animal, is grey: His motion is extremely slow. The female produces her young every year; the time of gestation is about forty days, and she generally brings forth three or four at a birth. One of the largest of these animals, weighed sixteen

pounds : The flesh is said to be agreeable, and wholesome meat.

Another animal, which we frequently find in the fields, is the Woodchuck. This animal is about sixteen inches in length ; its body is large, and round ; its legs are short ; and its fore feet are broad, and fitted for the purpose of burrowing into the earth. The colour of the woodchuck is brown, his fat is extreme, the flesh is wholesome and palatable food, his fur is not very valuable. This animal resides in a hole which he digs in the ground, and feeds upon grass, corn, beans, and other vegetables. The female generally produces four or five at a birth. One of the fattest which I have seen, weighed eleven pounds : I believe this was one of the largest size.

The Skunk is one of the most extraordinary animals, of which we have any account. It seems to be of the same species with the polecat, but is of a less size, and differs from it in several respects. Its hair is long, and shining, of a clouded or dirty white, intermixed with spots of black. Its tail is long, and bushy, like that of the fox. It lives chiefly in the woods, and hedges, but often burrows under barns and out houses. When undisturbed, this animal is without any ill scent, or disagreeable effluvia. Their natural evacuations are not more nauseous, than those of other animals. Whole nests of them will lie under the floor of a barn, and so long as they are undisturbed, no disagreeable odour will be perceived during the whole winter. Their flesh, when it is properly dressed, is sweet and nourishing. When pursued or attacked,

the skunk discovers its extraordinary powers, by a singular and most effectual method of defence. It emits a fluid of the most nauseous and intolerable scent, that has ever been known. So odious, subtle, and penetrating, is this ill scented matter, that there is no animal which can long endure it, or will venture to approach the skunk, when he is throwing it out. It infects the air to the distance of half a mile all around : And no method has been found, to extract the scent out of any object, on which the odious fluid has been thrown. Time and air, after a long period, affords the only complete remedy. By accurate dissection lately made by Dr. *Mitchell*, it has been found that this ill scented fluid, is entirely distinct from the urine. It is contained in two bags, situated in the posterior parts of the body ; and surrounded by the circular muscles in such a manner, that by their constriction, the fluid is forced out with great velocity and force. The urinary organs are totally distinct from these bags.* The female produces a litter every year ; and they generally amount to five or six in number. One of these animals weighed seven pounds and an half, but whether it was one of the largest size, I cannot determine.

The Martin is an animal, peculiar to cold climates. It is found in large numbers in Vermont, but chiefly in the most retired, and thickest parts of the woods. Its colour is a dark brown, with tinges of yellow ; sometimes the colour approaches to a black : The fur is fine,

* American Museum, Vol. V. p. 487.

soft, and much esteemed. This animal is from eighteen to twenty inches in length. A large one was found to weigh five pounds and one quarter of a pound. The female produces from three to six young ones, at a litter. The martin and sable denote the same animal in Vermont.

The Hare is about eighteen inches in length: It is always of a white colour, and has a fine, and beautiful fur: Its flesh is a very nourishing, and delicious food. This animal is very prolific. The time of gestation is about thirty days: The female bears three or four at a birth, and has several litters in the course of a year. A large hare weighs eight pounds. The hunters find large numbers of these animals, in this part of the country.

The Rabbit is something less than the hare, but in greater numbers. His colour, both in summer and winter, is a light grey, or dirty white. The length of the rabbit, is about sixteen or seventeen inches; one of the largest of them, weighed seven pounds. The rabbit is more prolific than the hare. The female bears sooner, and has from four to eight, at a litter. These animals are readily found, in every part of the state.

The Weasel has the form and appearance, of a squirrel; but is more slim, and active. His eyes have an uncommon sprightliness; his look is keen, and piercing; and his motions are so quick, and various, that the eye can scarcely follow them. This animal is of a red or brown colour, and has a white belly. Its fur is very fine, and soft. His food is corn, nuts, eggs,

and all kinds of small animals. The weasel is often found in hollow trees, and he frequently enters into houses, barns, and other buildings, in search of grain, chickens, mice, and young animals. In Vermont, the weasel is about twelve inches in length ; very narrow and slim, and weighs about twelve ounces. The female bears three, four, or five, at a birth ; but they do not appear to be very numerous.

The Ermine is the most beautiful quadruped, which is seen in our woods. In its form, dimensions, activity, and fecundity, it resembles the weasel, but is rather larger ; one of them weighed fourteen ounces. Its colour is a beautiful white : The tail is tipped with a beautiful black. Some of these animals have a stripe of dark brown, or mouse colour, extending along the back, from the head to the tail ; the other parts being perfectly white. This little, brisk, sprightly and beautiful animal, has the most fine and delicate fur, that can be imagined ; and the animal itself is one of the greatest beauties of nature.

Of the Squirrel we have four or five species ; grey, black, red, striped, and flying.

The *Grey Squirrel* is the largest, and most common. This squirrel is about thirteen or fourteen inches in length, with a large bushy tail, as long as the body. It is of a beautiful silver grey colour, and has a fine soft fur. Its nest is in the crotch, or hollow of a tree ; its food, corn, acorns, and nuts. It lays up a store of these provisions against winter, in the hollow of old trees. The female bears her young in the spring, and has generally three or four at a

birth. The largest of these grey squirrels, when they are fully fatted in the fall, weigh three pounds and an half.

The *Black Squirrel* resembles the former in every respect, but its colour, and size. It is wholly black, without any change in its colour, at any time of the year. Its size is something less than that of the grey squirrel: the largest I have known, weighed but two pounds and an half.

The *Red Squirrel* does not appear to differ from the black, in any other particular, but the colour.

The *Striped Squirrel* is smaller than either of the other. The largest of these does not weigh more than nine or ten ounces. This squirrel digs a hole in the ground, for the place of his residence. He provides a store of nuts, acorns, and corn, against winter. These are carefully deposited in his nest; and he resides in the earth during the severity of the season.

The *Flying Squirrel* is the most curious, and beautiful of all; and of the same size as the striped one: This squirrel has a kind of wings, by which he will pass from one tree to another, at the distance of thirty or forty feet. None of our animals have a more fine or delicate fur, than this little squirrel. He feeds on the buds, and seeds of vegetables; and generally has his nest in decayed, and rotten trees.

The Mole, Shrew Mouse, Ground Mouse, and Field Mouse, are to be found in this part of America: they are so small, and well known, that they do not require a particular description. The hunters inform me, that

there are several kinds of mice to be found in the woods, which have not been described. The grey rat, the black rat, and the water rat, have now become common ; though but a few years since, they were not to be found in any part of the state.

The quadrupeds which have been described, are to be found only upon the land. There are others of an *amphibious* nature, which live upon the land, or in the water ; these are to be found in the rivers, ponds, and lakes.

One of the most sagacious and useful of these, is the Beaver. On account of his natural constitution and instincts, his social nature, the works he performs, and the uses to which he is applied, the beaver is the most extraordinary of all our animals, and deserves a more particular description.

The American beaver is between three and four feet in length, and weighs from forty to sixty pounds. His head is like that of a rat, inclined to the earth ; his back rises in an arch between his head and tail. His teeth are long, broad, strong, and sharp. Four of these, two in the upper, and two in the under jaw, are called *incisors*. These teeth project one or two inches beyond the jaw, and are sharp, and curved, like a carpenter's gouge. In his fore feet the toes are separate, as if designed to answer the purposes of fingers and hands : His hind feet are accommodated with webs, suited to the purpose of swimming. His tail is a foot long, an inch thick, and five or six inches broad : It is covered with scales, and with a skin similar to that of fish.

In no animal does the *social instinct and habit* appear more strong, or universal, than in the beaver. Wheresoever a number of these animals are found, they immediately associate, and combine in society, to pursue their common business, and welfare. Every thing is done, by the united counsels, and labours, of the whole community. Their societies are generally collected together, in the months of June and July; and their numbers when thus collected, frequently amount to two or three hundred; all of which, immediately engage in a joint effort, to promote the common business and safety of the whole society; apparently acting under a common inclination, and direction. When the beaver is found in a solitary state, he appears to be a timid, inactive, and stupid animal. Instead of attempting any important enterprize, he contents himself with digging a hole in the earth for safety and concealment. His genius seems to be depressed, his spirits broken, and every thing enterprizing is lost in an attention to personal safety; but he never looses his natural instinct to find or form a pond.* When combined in society, his disposition, and powers assume their natural direction, and are exerted to the highest advantage: Every thing is then undertaken, which the beaver is capable of performing.

The society of beavers seems to be *regulated and governed*, altogether by natural dispositions,

* A young beaver was tamed in the southern part of this state. He became quiet, inoffensive, and without any disposition to depart. But was most of all pleased, when he was at work, forming a dam, in a small stream near the house.

and laws. Their society, in all its pursuits and operations, appears to be a society of peace and mutual affection ; guided by one principle, and under the same direction. No contention, disagreement, contrary interests, or pursuits, are ever seen among them ; but perfect harmony and agreement, prevails through their whole dominions. The principle of this union and regulation, is not the superior strength, art, or activity of any individual : Nothing has the appearance, among them, of the authority, or influence of a chief, or leader. Their association and management, has the aspect of a pure and perfect democracy ; founded on the principle of perfect equality, and the strongest mutual attachment. This principle seems to be sufficient to preserve the most perfect harmony, and to regulate all the proceedings of their largest societies.

When these animals are collected together, their first attention is to *the public business and affairs* of the society, to which they belong. The beavers are amphibious animals, and must spend one part of their time in the water, and another upon the land. In conformity to this law of their natures, their first employment is to find a situation, convenient for both these purposes. With this view a lake, a pond, or a running stream of water, is chosen for the scene of their habitation, and future operations. If it be a lake, or a pond that is selected, the water is always of such depth, that the beavers may have sufficient room to swim under the ice ; and one, of which they can have an entire, and undisturbed possession. If a stream of water is

chosen, it is always such a stream, as will form a pond, that shall be every way convenient for their purpose. And such is their foresight and comprehension of these circumstances, that they never form an erroneous judgment, or fix upon a situation that will not answer their designs and convenience. Their next business, is to construct a dam. This is always chosen in the most convenient part of the stream; and the form of it, is either direct, circular, or with angles, as the situation and circumstances of the water and land, require: And so well chosen is both the place, and the form of these dams, that no engineer could give them a better situation and form, either for convenience, strength, or duration. The materials of which the dams are constructed, are wood, and earth. If there be a tree on the side of the river, which would naturally fall across the stream, several of the beavers set themselves with great diligence, to cut it down with their teeth. Trees to the bigness of twenty inches diameter, are thus thrown across a stream. They next, gnaw off the branches from the trunk, that the tree may assume a level position. Others, at the same time, are cutting down smaller trees, and saplings, from one to ten inches diameter. These are cut into equal and convenient lengths. Some of the beavers drag these pieces of wood to the side of the river, and others swim with them to the place, where the dam is to be built. As many as can find room, are engaged in sinking one end of these stakes; and as many more in raising, fixing, and securing the other end. While many of the beavers are thus labouring upon

the wood, others are equally engaged in carrying on the earthern part of the work. The earth is brought in their mouths, formed into a kind of mortar with their feet and tails, and spread over the vacancies between the stakes. Saplings, and the small branches of trees, are twisted and worked up with the mud and slime, until all the vacancies are filled up; and no crevice is left in any part of the work, for the water to find a passage through. The magnitude and extent of the dams, which the beavers thus construct, is much larger than we should imagine was possible to be effected, by such labourers, or instruments. At the bottom, the dam is from six to twelve feet thick; at the top, it is generally two or three feet in width. In that part of the dam, which is opposed to the current, the stakes are placed obliquely; but on that side where the water is to fall, the stakes are placed in a perpendicular direction; and the dam assumes the same form, and position, as the stakes. The extent of these works, is from fifty to an hundred feet in length; and always of such an height, as to effect the purposes they have in view. The ponds which are formed by these dams, are of all dimensions; from four or five, to five or six hundred acres. They are generally spread over lands abounding with trees, and bushes, of the softest wood: Maple, birch, alder, poplar, willow, &c. The better to preserve their dams, the beavers always leave sluices, or passages near the middle, for the redundant waters to pass off. These sluices are generally about eighteen inches in width, and depth; and as many in number, as the waters of the stream generally require.

When the public works are completed, their *domestic concerns and affairs* next engage their attention. The dam is no sooner completed, than the beavers separate into small bodies, to build cabins, or houses for themselves. These houses are built upon piles, along the borders of the pond. They are of an oval form, resembling the construction of an haycock; and they vary in their dimensions, from four to ten feet in diameter, according to the number of families they are designed to accommodate. They are always of two stories, generally of three, and sometimes they contain four. Their walls are from two to three feet in thickness, at the bottom; and are formed of the same materials as their dams. They rise perpendicularly a few feet, then assume a curved form, and terminate in a dome or vault, which answers the purpose of a roof. These edifices are built with much solidity, and neatness: On the inward side, they are smooth, but rough on the outside; always impenetrable to the rain, and of sufficient strength to resist the most impetuous winds. The lower story is about two feet high: the second story has a floor of sticks, covered with mud: the third story is divided from the second, in the same manner, and terminated by the roof raised in the form of an arch. Through each floor, there is a communication; and the upper floor is always above the level of the water, when it is raised to its greatest height. Each of these huts have two doors; one, on the land side, to enable them to go out and procure provisions by land; another under the water, and below where it freezes, to

preserve their communication with the pond. If this, at any time begins to be covered with ice, the ice is immediately broken, that the communication may not be cut off with the air.

In these huts, the *families* of the beavers have their residence. The smallest of their cabins, contain one family, consisting generally of five or six beavers; and the largest of the buildings will contain from twenty to thirty. No society of animals, can ever appear better regulated, or more happy, than the family of beavers. The male and the female, always pair. Their selection is not a matter of chance, or accident; but appears to be derived from taste, and mutual affection. In September, the happy couple lay up their store of provisions, for winter. This consists of bark, the tender twigs of trees, and various kinds of soft wood. When their provisions are prepared, the season of love and repose commences: And during the winter they remain in their cabins, enjoying the fruits of their labours, and partaking in the sweets of domestic happiness. Towards the end of winter, the females bring forth their young, to the number of three or four. Soon after, the male retires to gather fish, and vegetables, as the spring opens; but the mother remains at home, to nurse, and rear up the offspring, until they are able to follow their dams. The male occasionally returns, but not to tarry, until the fall of the year. But if any injury is done to their public works, the whole society are soon collected, and join all their forces to repair the injury, which affects their commonwealth.

NOTHING can exceed *the peace and regularity*, which prevails in the families, and through the whole commonwealth of these animals. No discord or contention ever appears in any of their families. Every beaver knows his own apartment, and store house ; and there is no pilfering or robbing from one another. The male and the female are mutually attached to, never prove unfriendly, or desert one another. Their provisions are collected, and expended, without any dissention. Each knows its own family, business, and property ; and they are never seen to injure, oppose, or interfere with one another, The same order and tranquility prevail, through the commonwealth. Different societies of beavers, never make war upon one another, or upon any other animals. When they are attacked by their enemies, they instantly plunge into the water, to escape their pursuit : And when they cannot escape, they fall an easy sacrifice.

In the *arts* necessary for their safety, the beavers rise to great eminence. The situation, direction, form, solidity, beauty, and durability of their dams, are equal to any thing of the kind, which has ever been performed by man. They always form a right judgment, which way the tree will fall : And when it is nearly cut down, they appoint one of their number, to give notice by a stroke of his tail, when it begins to fall. With their tails, they measure the lengths of their dams, of the stakes they are to use, of a breach that is made in their works, and of the length of the timber that is necessary to repair it. When an enemy approaches their domin-

ions, the beaver which makes the discovery, by striking on the water with his tail, gives notice to the whole village of the approaching danger; and all of them instantly plunge into the water. And when the hunters are passing through their country, some of their number appear to be centinels, to give notice of their approach.

The colour of the beaver is different, according to the different climates, which they inhabit. In the most northern parts, they are generally black; in Vermont they are brown; and their colour becomes lighter as we approach towards the south. Their fur is of two sorts, all over their bodies. That which is longest, is generally about an inch long, but on the back, it sometimes extends to two inches, gradually shortening towards the head, and tail. This part is coarse, and of little use. The other part of the fur consists of a very fine and thick down, about three quarters of an inch long, so soft that it feels like silk, and is that, which is used in manufactories. Castor, of so much use in medicine, is produced from the body of the beaver. It is contained in four bags, in the lower belly.

The largest of these animals, of which I have any certain information, weighed sixty three pounds and an half: But it is only in a situation remote from, and undisturbed by the frequent appearances of men, that they attain their greatest magnitude, or their highest perfection of society. The beaver has deserted all the southern parts of Vermont, and is now to be found only in the most northern, and uncultivated parts of the state.

The Muskrat seems to be a smaller kind of beaver, resembling it in every thing but its tail. This is also an amphibious animal, and forms a cabin of sticks and mud, in some stagnant water ; but is less fearful of the approaches of men, and affords a very strong musk. These animals are to be found, in very considerable numbers, in our creeks, and lakes ; but are much less numerous, than they were formerly. The muskrat, in this part of America, is about fifteen inches in length ; the greatest magnitude I have known is five pounds and three quarters of a pound. A litter of these muskrats, will frequently amount to four, five, and sometimes six.

Another of our amphibious animals, is the Mink. It always resides in the neighborhood of rivers, ponds, or lakes ; and provides a place of residence, by burrowing into the earth. The mink is about twenty inches in length ; his legs are short, his colour brown, and his fur is more valuable than that of the muskrat. One of the largest which I have known, weighed four pounds and one quarter of a pound. The female produces two or three, at a birth.

The Otter is a voracious animal, of great activity and fierceness. When it is fully grown, it is five or six feet long ; with sharp and strong teeth ; short legs, and membranes in all his feet ; and fitted either for running or swimming. The otter explores the rivers and ponds in search of fish, frogs, water rats, and other small animals : And when these are not to be had, he lives on the boughs and bark of young, or aquatic trees. He has generally been ranked

among the amphibious animals, which can live either in the air, or water; but he is not properly an amphibious animal, for he cannot live without respiration, any more than the land animals. The female is in heat in the winter, and bears her young in the month of March; the litter generally consists of three or four. The fierceness and strength of the old otters, is such, that the dog can seldom overcome them: And when they cannot escape, they will attack the hunter with great rage. The colour of this animal is black, and its fur is much esteemed. The otter formerly abounded very much in our creeks, and rivers; and especially in those, which empty themselves into Lake Champlain: On this account, one of them still bears the name of *Ottercreek*; but the animal is now become scarce. The largest otter, of which I have a particular account, weighed twenty nine pounds and an half.

To this account of the quadrupeds of Vermont, I shall subjoin some reflections on the general state of these animals in America.

The enumeration very imperfect. Our accounts of the quadrupeds in this, and in every part of America, must be viewed as greatly imperfect. The descendants of Europe have settled along the sea coasts, and they have penetrated to the lakes, and most of the navigable rivers. But the internal parts of S. America, are but little known: And all that immense tract of country in N. America, which lies to the north, and to the west of the lakes, is wholly unexplored. It is not to be doubted, but these extensive regions, abound with quadrupeds: Of what spe-

cies, and how numerous, we cannot so much as conjecture. When the country shall be fully explored, and when able naturalists shall have visited and examined the internal parts, the history of the animals of America, may be brought to some perfection ; but it is far from it, at present. All the animals which have been enumerated, are only those which are frequently found, in a small part of the continent. That an animal of great and uncommon magnitude, has existed in North America, and in Siberia, is certain from the bones of the animal which yet remain. On the banks of the Ohio, and in many places further north, tusks, grinders, and skeletons, of an enormous size, are to be found in great numbers. Some of them lie upon the surface of the ground, and others are five or six feet below it. Some of the tusks are near seven feet long, one foot and nine inches at the base, and one foot near the point ; the cavity at the base, nineteen inches deep. From the size and thickness of these bones, it is certain that they could not belong to the elephant ; but denote an animal five or six times as large, and of the carnivorous kind. We have the testimony of the Indians that such an animal still exists in the western parts of America . And it would be contrary to the whole economy of nature, to suppose that any species of her animals, is become extinct. This animal must formerly have been numerous, at those places, where their bones are found in such numbers. The probability is, as the means of subsistence were destroyed, they removed further to the westward. But until those parts of America shall be ex-

plored, little information is to be expected concerning this animal of the most enormous bulk: And we may as well call it the *Mammoth*, as by any other name; or the *Pseudo Elephant*, as it has been named by Dr. Hunter. From this, and from many other considerations, it appears that the enumeration of the American quadrupeds, is extremely imperfect.

ORIGIN. The animals which are spread over the face of the earth, are fitted by nature, for the climate and country, where they reside. No animal, or vegetable, has a constitution adapted to every country: And there are none, but what are suited to some particular part of the earth, where they will arrive to their greatest perfection. A camel is peculiarly fitted, for the burning sands of Arabia: And the reindeer will flourish the best in Lapland, Hudson's Bay, and those northern countries, where the cold is the most intense. The origin therefore of different quadrupeds, is to be sought in those climates, that appear to be the best adapted to their growth and multiplication. There are animals in the torrid zone in America, which are never found in any other part of the earth. This is the case with the *Tapyr* of Brasil, the *Puma* and *Jugar*, the *Lama* and *Paco*. These animals have never wandered into any other part of the globe: They are therefore to be esteemed indigenous, or natural to the hot climates of America. The same is the case with the animals of the torrid zone in Asia, and Africa. The elephant, and rhinoceros, are productions of Asia. The deserts of Zaara and Biledulgerid in Africa, may be termed the native country of

lions, tygers, and panthers. No part of the climate of America is so intensely hot, or sandy, as to render it the proper country for the production or increase of animals, so fierce and noxious. These quadrupeds of hot climates, have never wandered from the one country, to the other : Not because they could not find a passage, but because they must have passed through a climate, the cold of which, being such as they could not endure, was an effectual bar to their passage. There are other quadrupeds which are common to America, to the north of Asia, and to Europe. Of this kind are the buffalo, white bear, carabou, black bear, elk, moose, red deer, fallow deer, wolf, roe, glutton, lynx, wild cat, beaver, badger, red fox, grey fox, black fox, otter, monax, vison, porcupine, martin, water rat, weasel, ermine, flying squirrel, mole, and mouse. If we add the unknown animal, which we have called the mammoth, the number of those quadrupeds which are common to both hemispheres, will amount to thirty. All of them, are the quadrupeds of cold countries ; fitted by nature to that climate, through which the passage must have been, from the one country to the other. The original situation therefore of these quadrupeds, must have been a cold country. But whether they passed from the northeastern parts of Asia, into America ; or whether they issued from the northwest parts of America, into Asia ; we have no way to determine. The probability is equal, upon either supposition. All that we can determine is, that they were originally the quadrupeds of a cold climate.

MIGRATION. Animals of every kind when oppressed by hunger, harassed by their enemies, or when they can find a more comfortable situation, will migrate from one country to another. Their migration when chosen and voluntary, is always with a view to better accommodations; to a situation more favourable for food, growth, and multiplication. Directed by the hand of nature, their natural progress is not to a worse, but to a better situation. They do not leave their own country, to settle in one less suited to their subsistence, and increase; but to acquire greater advantages; an increase of food, numbers, and vigour. Whether the migration of quadrupeds then was from Asia, or from America, there can be no doubt, but that they found in the country to which they repaired, a climate, soil, and means of subsistence, equally favourable to them, as those which they left. Had there been any very great difference in the provisions, and accommodations of nature, in either country, the quadrupeds that could easily migrate, would not have remained, for any considerable time, common to them both. Nothing therefore can be less probable, or more contrary to the laws, tendencies, and operations of nature, than the European idea first introduced by M. Buffon, that the quadrupeds of Europe migrated into a country in America, where every thing was adapted by nature, to their diminution, degradation, and decrease. Had not the northern parts of Asia, and America, been well suited to the subsistence, vigour, and increase of these quadrupeds, there would not have been any voluntary migration,

from the one to the other; nor would these animals have remained, for so long a time, common to them both.

Species. How far nature has proceeded in the production of quadrupeds, we have not as yet, sufficient information to determine. There may be many species, yet unknown, in those parts of the earth which have not been explored: Nor is the enumeration complete, in those countries which are known. The most that has been done in this branch of natural history, is to be found in the celebrated work of M. Buffon. As the result of his inquiries and information, this able philosopher concludes that the whole number of quadrupeds, which are spread over the face of the earth, will form about two hundred different species or kinds.* Of these, one hundred are found in America, and about seventy five are peculiar to it. If the power, the force, or the vigour of animated nature, is to be estimated by the species of quadrupeds, which different countries contain, the conclusion will be, that nature has acted with the greatest vigour and energy in America. In the different climates in America, nature has produced seventy five species of quadrupeds: the number of those which are peculiar to the other parts of the globe are one hundred. The dimensions of America, compared with the dimensions of Asia, Africa, and Europe, by the computation of the modern geographers, are as one hundred and forty one to two hundred and forty nine.† The ratio of one

* Vol. IX. 41.
† Guthrie's Geography, p. 25.

hundred and forty one to two hundred and forty nine is the same as seventy five to one hundred and thirty two. And so many species should be found, in the other parts of the globe, to preserve an equality: But this is thirty two more, than nature has produced. In respect then to the different species of quadrupeds, if we are to judge by any enumeration which has yet been made, the greatest force and vigour of nature is found in America.*

MAGNITUDE. The magnitude which any animal will attain, seems to depend much upon its original constitution, the climate, and proper nourishment. In the original constitution of each animal, the Creator seems to have established certain laws, respecting its form, generation, expansion, and support. The proper magnitude of the animal, is therefore assigned by nature, to each species: In this way, the original limits are fixed; above, or below which, no individual of that species shall rise, or fall. Within these limits, those variations may take place, which we mean to express, when we call the animal great, or small. But no circumstance will reverse the laws of nature, enable the different species of animals to exchange their proper form, and magnitude; to debase the ox into a mole, or to exalt the mole to the size of the ox. Nature has also fitted each quadruped for the climate, in which it was originally placed; and in that climate only, will it

* THE enumeration of quadrupeds seems to be too imperfect to afford any accurate calculations of this kind. According to M. Buffon's latest conclusions, in his Epoques de la Nature, there are three hundred species of quadrupeds. America according to the Abbe Clavigero, contains about one half of these.

attain its proper perfection. The lion would lose its fierceness, and perish, if it was removed to Lapland ; and the reindeer would diminish, and die, if it was carried to the sandy deserts of Africa. In those climates only, to which nature has adapted each animal, will it attain its greatest magnitude, and most perfect form. The animal, to which nature has thus assigned its proper constitution, and climate, must be preserved and supported by proper food, or nourishment. A deficiency here, will bring on leanness, impotency, a diminution of size, and a gradual waste and consumption of the whole species. But when the climate, and the food, are both suited to the natural constitution of the animal, their joint influence will produce the greatest size or magnitude, that species will admit.

By comparing the magnitudes of such quadrupeds in Europe, and in America, as are common to both, and derive their support from the hand of nature, we shall of consequence have another comparative view of the vigour and force, to which animated nature arrives, in each country. Several of those quadrupeds, whose weight has been ascertained in Vermont, M. Buffon has given us the weight of in Europe. They are these,

	Weight in Europe. lb. oz.	Weight in Vermont. lb. oz.
The Bear	153 7	456
Wolf	69 8	92
Deer	288 8	308
Fox, red	13 5	20
Porcupine	2 2	16
Martin	1 9	5 4

	Weight in Europe. lb. oz.	Weight in Vermont. lb. oz.
Polecat	3 3	7 8
Hare	7 6	8
Rabbit	3 4	7
Weasel	2 2	12
Ermine	8 2	14
Flying Squirrel	2 2	10
Beaver	18 5	63 8
Otter	8 9	29 8

From this comparison it appears, that every one of these animals, is larger in America, than it is in Europe. The inference is clear, and decisive : It is in America, and not in Europe, that these quadrupeds of a cold climate, attain their greatest magnitude, and highest perfection.

If the comparison should be made, between the quadrupeds of the torrid zone, the reverse will be found to be the case. The elephant, the rhinoceros of Asia, are much larger than the quadrupeds of Peru and Brasil. The truth is, America is the most favourable to the productions, and growth, of the quadrupeds of cold climates : Asia is the most favourable to the productions, and growth of the quadrupeds of a hot climate. But the greatest of all animals, the Mammoth, was not an animal of the torrid, but of the temperate zone ; and was the production of both countries, of Asia, and of America.

Temper and Disposition. Most animals have a particular disposition and character assigned to them by nature, indelibly fixed, and which distinguishes the whole species. Thus some are naturally fierce, sanguinary, and car-

nivorous ; while others are mild, temperate, and gentle : And all of them, are not a little influenced, by the climate they inhabit. In the hottest climate, and in the burning sands of Africa, the most ravenous, and the fiercest animals abound : The lion, the tyger, and the panther, are there ; in their greatest size, their largest numbers, and most extreme fierceness. In such places, the vegetables also contain their strongest qualities ; the drugs, perfumes, and poisons, are the most active, subtle, and powerful. In America every thing in her vegetables, fruits, and animals, is more mild and temperate. The quadrupeds that most abound, are the lama, paco, buffalo, elk, deer, fox, beaver, hares, rabbits, and squirrels ; animals, marked with a mildness, and gentleness of character. Those that are the most fierce, the bear, the wolf, the wild cat, the otter, the congar, or tapyr, are seldom known to make their attacks upon men, unless they are impelled to it by extreme hunger, provocation, or self defence. It was not therefore with the most fierce and ravenous animals, that America abounded : Her quadrupeds were of a more mild, and temperate disposition. To these, her climate gives the greatest size, the highest perfection, and the largest increase.

INCREASE AND MULTIPLYING POWER. The increase and multiplying power of animals, is derived partly from nature, and partly from situation, and other circumstances. Nature has made those animals which are the most large, fierce, and noxious, the least apt to multiply. The smaller and more useful any quadruped is, the more rapid is its increase. All of

them bring forth their young, at that season of the year, when nature has made the most suitable and ample provision, for their food and support. And then they multiply with the greatest rapidity, when they are the least molested by man. But whatever be their multiplying power, it would require a long period of time, before they would arrive at that increase of numbers, in which their progress would be checked, by the want of food. They would naturally spread over the whole continent, before they arrived to such a state. This they had done in every part of America, when it was first discovered by the Europeans : Every part of the continent, fitted for their nourishment and growth, abounded with them. How far nature may proceed this way, or what is the greatest number of quadrupeds, that the uncultivated state of any country will support, we have no observations to determine. But it seems probable, that the *maximum* had already taken place ; that America contained her full number of quadrupeds. No observations or phenomena, denote that there has been any increase of these animals, in the uncultivated parts of the continent, since its first discovery ; or that they ever were more thick and numerous, in any other part of the globe. How long a period nature required to advance to this state in America, we have no data to determine. But if we may judge of the energy with which she acts, from the effects of her multiplying power, the conclusion will be, that in no country has she displayed greater powers of fecundity than in America. These circumstances

denote an high antiquity, in the origin of the American quadrupeds ; and a great fertility in that climate and country, in which they have attained their greatest numbers, their greatest magnitude, and their greatest fecundity.

BIRDS.

THE Birds which abound in every part of America, make a curious and beautiful part of her natural history. *Catesby* has given an elegant description of the birds of Carolina. *Belknap* has furnished a good catalogue of those of Newhampshire. Most of the birds which have been mentioned by these authors are to be found in all the northern states. As we approach further towards the north, a great number and variety of water fowl are to be found, in the lakes, rivers, and harbours, which have never been described, or classed.

IN Vermont we have most of the birds, which are known in the inland parts, and lakes of the northern climates. Some of them seem to be fitted by nature, to endure all the severity of our climate, and are to be seen in the coldest weather of our winters. Of this kind, are

The Crow. *Corvus Cornix.*
Hawk, forked tail. *Falco Furcatus.*
Owl. *Strix Asio.*
Blue Jay. *Corvus Cristatus.*
Snowbird. *Emberiza Hyemalis.*
Partridge. *Perdix Sylvestris.*
Woodpecker, redheaded. *Picus Capite toto rubro.*

THERE are several other birds, the robbin, blackbird, lark, snipe, bluebird, &c. which are

seen as soon as the snow goes off, in the spring. They are not seen in the winter, but they are found late in the fall. From their late and early appearance, it is not improbable that some of them may tarry here through the winter.

THOSE which are esteemed *birds of passage*, with the usual times of their appearance, and departure, are

	Time of appearance.	Departure
The Snowbird. *Emberiza hyemalis*	Nov. 20.	April 1.
Wild goose. *Anas canadensis.*	March 15	Nov. 20.
Wild Pigeon. *Columba migratoria*	March 20.	Oct. 10.
House Swallow. *Hirundo cauda acculeata*		
Barn Swallow. *Hirundo Rustica.*		
Ground Swallow. *Hirundo Riparia.*		Ap. 20 Sp. 20
Black Martin. *Hirundo Perpurea,*		

THE SNOWBIRD is a beautiful, active, sprightly, little animal. They are generally of a grey colour, and less than a sparrow. Flocks of them appear, as soon as the snow begins to fall in any considerable quantity; and generally a day or two before. They perch on the spires of vegetables above the snow, on the bushes, and trees; and collect on the spots of bare ground. In the most severe storms of snow, these birds appear to be the most active and lively. They feed on the seeds of vegetables, and are extremely fat and delicious; but they are too small to be molested on this account. They seem to be of different colours, black, white, and grey; but they all disappear as soon as the snow goes off.

THE WILD GOOSE, from the beginning of April, to the middle of November, resides

chiefly in the more northern, and northeasterly parts of America. In those parts they produce their young, and are to be found in the rivers and harbours, in immense numbers. In November they come in large flocks from the north, and northeast, and pass off to the southwest. In March and April, they return from the southwest in a contrary direction, and go back to their summer habitation. These flocks frequently consist of fifty or sixty: They fly at a great height, and appear to observe great regularity in their passage. They sometimes follow one another in a straight line, but are more generally drawn up in the form of a wedge; and appear to be led by one of the strongest, and most active. While they keep together, they seem to understand their course perfectly well; but if by any means their order is broken, and the flock dispersed, several of them wander out of their course, appear to be perplexed, descend to the earth, and are often killed or taken. When tamed, they will join with a flock of domestic geese; but at the usual times of migration, are very apt to join any flock, which approaches near to them, in their passage.

In the Wild Pigeon, the multiplying power of nature acts with great force and vigour. The male and female always pair: they sit alternately upon the eggs, and generally hatch but two at a time; but this is repeated several times in a season. The accounts which are given of the number of pigeons in the uncultivated parts of the country will appear almost incredible to those who have never seen their

nests. The surveyer, *Richard Hazen*, who ran the line which divides Massachusetts from Vermont, in 1741, gave this account of the appearances, which he met with to the westward of Connecticut river. "For three miles together the pigeons' nests were so thick, that five hundred might have been told on the beech-trees at one time; and could they have been counted on the hemlocks, as well, I doubt not but five thousand at one turn round."* The remarks of the first settlers of Vermont, fully confirm this account. The following relation was given me, by one of the earliest settlers at Cendon: "the number of pigeons was immense. Twenty five nests were frequently to be found on one tree. The earth was covered with these beech trees, and with hemlocks, thus loaded with the nests of pigeons. For an hundred acres together, the ground was covered with their dung, to the depth of two inches. Their noise in the evening was extremely troublesome, and so great that the traveller could not get any sleep, where their nests were thick. About an hour after sunrise, they rose in such numbers as to darken the air. When the young pigeons were grown to a considerable bigness, before they could readily fly, it was common for the settlers to cut down the trees, and gather a horse load in a few minutes." This account may appear improbable to those who have not observed the fecundity of nature. But it falls much short of what has been observed in the state of Ohio. The following is from *Harris's*

* Belknap's history of Newhampshire, Vol. III. p. 171.

account of that state p. 179, 180. "The vast "flights of pigeons in this country seem incred- "ible. But there is a large forest in Water- "ford, containing several hundred acres, which "has been killed in consequence of their light- "ing upon it during the autumn of 1801. "Such numbers lodged upon the trees that "they broke off large limbs; and the ground be- "low is covered, and in some places a foot "thick, with their dung, which has not only "killed all the undergrowth, but all the trees "are dead as if they had been girdled."

The above, he adds is confirmed by a letter from the Rev. Mr. *Story*, dated Marietta, June 3, 1803. "I have visited two pigeon-roosts, "and have heard of a third. Those I have seen "are astonishing. One is supposed to cover "one thousand acres; the other is still larger. "The destruction of timber and brush on such "large tracts of land by these small animals is "almost incredible. How many millions of "them must have assembled to effect it! espe- "cially as it was done in the course of a few "weeks." The settlement of the country has since set bounds to this luxuriancy of animal life; diminished the number of these birds, and drove them further to the northward.

We have four species of Swallows in this part of America. 1. The house swallow. This may be readily distinguished from the rest, by the greater forkedness of its tail. It has also a red spot upon its forehead; and under its chin. This species build their nests in chimneys. Their nests are made of small sticks, cemented together, with a kind of gum, and

mud ; they are covered or arched over the tops, and the aperture is on one side. These swallows appear the earliest of any, in the spring : And a few days before their departure in the fall, they associate on the tops of buildings, dry trees, and bushes, as if about to depart in companies. 2. The barn swallow. The size of this, is rather less than that of the other ; and the tail is not forked so much. These swallows build their nests in barns and out houses ; and they are formed of grass straw, and feathers. Their eggs are speckled, of a dark brown and white. It is called the barn swallow from the place in which it generally builds its nest. 3. The ground swallow. This is the smallest of the whole species. These swallows form a hole in sandy banks, and on the sides of rivers, of eighteen or twenty four inches in length. Their nests are made at the extremity of these holes, of straw and feathers, laid together in a loose and careless manner. Their eggs are perfectly white. The holes in which they are laid, are designed only for their nests : None of the swallows ever remain in them, during the winter. 4. The black martin. This is the largest of all our swallows. They build their nests under the eaves of houses, in the secret or retired places of out houses, and old buildings. Their nests are made of straw and feathers. They arrive the latest, and disappear the soonest of any of the swallows, which visit us.

The usual times of the appearance and disappearance of these birds, serve to mark the temperature of the climate, with as much precision, as any of the phenomena of nature. But they

do not seem to be properly birds of passage. At *Danby* in this state, the inhabitants report, that some of them were taken out of a pond in that town, some years ago. A man was employed in the winter, to procure the roots of the pond lily, for medicinal purposes. Among the mud and roots which he threw out, several swallows were found inclosed in the mud ; alive, but in a torpid state. The account is not doubted among the inhabitants ; but I have not the testimony of any persons who saw these swallows. It has been doubted by some able naturalists, whether it is possible for the swallow to live in such a situation. I saw an instance, which puts the possibility of the fact beyond all room for doubt. About the year 1760, two men were digging in the salt marsh at Cambridge, in Massachusetts : On the bank of Charles' river about two feet below the surface of the ground, they dug up a swallow, wholly surrounded and covered with mud. The swallow was in a torpid state, but being held in their hands, it revived in about half an hour. The place where this swallow was dug up, was every day covered with the salt water ; which at every high tide, was four or five feet deep. The time when this swallow was found, was the latter part of the month of February : but the men assured me, they had never found any other swallows in such a situation. The species called the house or chimney swallow, has been found during the winter, in hollow trees. At Middlebury in this state, there was a large hollow elm, called by the people in the vicinity the swallow tree. From a man who,

for several years, lived within twenty rods of it, I procured this information : He always thought the swallows tarried in the tree through the winter, and avoided cutting it down, on that account. About the first of May, the swallows came out of it, in large numbers, about the middle of the day ; and soon returned. As the weather grew warmer, they came out in the morning with a loud noise, or roar, and were soon dispersed : About half an hour before sun down, they returned in millions, circulating two or three times round the tree, and then descending like a stream, into a hole about sixty feet from the ground. It was customary for persons in the vicinity, to visit this tree, to observe the motions of these birds : And when any persons disturbed their operations, by striking violently against the tree, with their axes, the swallows would rush out in millions, and with a great noise. In November, 1791, the top of this tree, was blown down, twenty feet below where the swallows entered. There has been no appearance of the swallows since. Upon cutting down the remainder, an immense quantity of excrements, quills and feathers were found ; but no appearance or relicks of any nests.

ANOTHER of these swallow trees, was at *Bridport*. The man who lived nearest to it, gave this account : The swallows were first observed to come out of the tree, in the spring ; about the time, that the leaves first began to appear on the trees. From that season, they came out in the morning, about half an hour af-

ter sunrise : They rushed out like a stream, as big as the hole in the tree would admit, and ascended in a perpendicular line, until they were above the height of the adjacent trees ; then assumed a circular motion, performing their revolutions two or three times, but always in a larger circle, and then dispersed in every direction. A little before sundown, they returned in immense numbers, forming several circular motions, and then descended like a stream into the hole, from whence they came out in the morning. About the middle of September, they were seen entering the tree, for the last time. These birds were all of the species called the house or chimney swallow. The tree was a large hollow elm, the hole at which they entered was about forty feet above the ground, and about nine inches diameter. The swallows made their first appearance in the spring, and their last appearance in the fall, in the vicinity of this tree ; and the neighboring inhabitants had no doubt, but that the swallows continued in it during the winter. A few years ago, a hole was cut at the bottom of the tree : From that time, the swallows have been gradually forsaking the tree, and have now almost deserted it. The following account from *Nathan Rumsey*, Esq. of *Hubbardton* is more circumstantial and conclusive. " Sometime in the month of March, A. D. 1786, when the snow was deep on the ground, I was making sugar in the town of *Hubbardton*, with the assistance of some boys. The boys informed me that they had discovered a large number of birds flying out from a tree. I went myself to

the tree, and found that the birds were swallows of the chimney kind. The tree was an elm of a large size, and hollow fifty or sixty feet from the ground. Remaining for several days in the vicinity I observed the swallows in the fore part of the day going out, and in the latter part of the day going in at the same place. I chopped a hole in the tree from whence I could see through it to the place where they went out, and found that they extended from fifty or sixty feet in height near down to the ground; and appeared to be sticking to the tree as thick as they could be placed, and that the sides of the cavity were every where lined with them; a considerable part of them seemed to lie in a torpid state."

From these accounts I am led to believe that the house swallow, in this part of America, generally resides during the winter, in the hollow of trees; and that the ground swallows, find security in the mud, at the bottom of lakes, rivers, and ponds.

Of the SINGING BIRDS, the following are the most distinguished, either by the variety of their notes, or by the melody of their sound:

The Robin. *Turdus Migratorious.*
Skylark. *Alauda Alpestris.*
Thrush. *Turdus Rufrus.*
Thrasher, or Mockbird. *Turdus Polyglottos.*
Boblincoln. *Emberiza Oryzivora.*
Yellowbird. *Fringilla Aurea.*
Bluebird. *Motacilla Coerulia.*
Wren. *Motacilla Regulus.*
Red winged Blackbird. *Turdus Niger Alis Superne Rubentibus.*

Catbird. *Muscicapa Vertice Nigro.*
Golden Robin, or Goldfinch. *Oriolus Aureus.*
Springbird. *Fringilla,*
Hangbird. *Oriolus Icterus.*

The only natural music, is that of birds. In the uncultivated state, and parts of the country, this delightful sound is not to be heard. Either disgusted with so gloomy a scene, or disliking the food in the uncultivated lands, the musical birds do not deign to dwell in such places ; or to put forth their melody to the rocks, and to the trees. But no sooner has man discharged his duty, cut down the trees, and opened the fields to the enlivening influence of the air and the sun, than the birds of harmony repair to the spot, and give it new charms by the animating accents of their music. From break of day till about nine o'clock, the lovely harmony is heard from every quarter. About that time of day, the music ceases. The musicians retire to other employments ; and there is no further concert, until next morning. This is one of the most delightful scenes, which nature affords : But like most of our delicate pleasures, it is not to be enjoyed, but in the cultivated state.

A great variety of birds generally resort to the ponds, rivers, and lakes ; which on that account, are commonly distinguished by the name of *Water Fowl.* Among these aquatic birds, the most common are

The Goose, three species. *Anser Canadensis.*
Duck, eight or ten. *Anas*
Teal, two. *Anas.*
Heron, two. *Ardea.*

Gull, two. *Larus.*
Shelldrake, three. *Mergus.*
Crane. *Ardea Canadensis.*
Stork. *Ardea Ciconia.*
Loon. *Colymbus Immer.*
Waterhen. *Alea Artica.*

There are many other birds, which do not fall under either of the above descriptions. Of this kind, the following are the most common and numerous.

The Eagle, two species. *Falco.*
Hawk, four. *Falco.*
Owl, three. *Strix.*
Woodpecker, seven or eight. *Picus.*
Kingbird. *Lanius Tyrannus.*
Crow Blackbird. *Gracula Quiscula.*
Cuckow. *Cuculus Americanus.*
Kingfisher. *Alcedo Alcyon.*
Woodcock. *Scolopax Rustica.*
Woodsnipe. *Scolopax Fedoa.*
Quail. *Perdix Minor.*
Curlew, two. *Scolopax———.*
Plover, four. *Charadrius.*
Wild Turkey. *Maleagris Gallopavo.*
Turtle Dove. *Columba Carolinensis.*
Whip poor Will. *Caprimulgus Europæus, B.*
Nighthawk. *Caprimulgus Americanus.*
Hedgebird. *Muscicapa Canadensis.*
Crossbill. *Loxia Curvirostra.*
Hummingbird. *Trochilus Colubris.*

In addition to these, there is a mamillary biped, the Bat *(vespertilio murinus :)* And a great variety and number of small birds, which have never been enumerated, described, or classed. We meet with them every day in the fields, but

they are not distinguished by any proper names.

It is worthy of remark that in the birds of America, nature proceeds from her most minute and curious, to the most sublime and magnificent productions. The *Hummingbird* is the least of all birds. The *Condor*, a bird of South America, in bulk, strength, and courage, is the greatest. Both of these are peculiar to America. The gradation from the least to the greatest, through all the intermediate steps and degrees, is nicely and beautifully filled up with an infinite variety of others.

FISHES.

Of the great variety of fish, which nature has produced in the waters of America, but a small part are found in the internal parts of the continent. The largest collection of waters which we have in Vermont, are the lakes Champlain, Memphremagog, Connecticut river, with the ponds and streams connected with them. In these waters we have

The Sturgeon. *Acipenser Sturio.*
Salmon. *Salmo.*
Salmon trout. *Salmo Salar.*
Bass. *Perca Ocelata.*
Pickerel, or Pike. *Esax Lucius.*
Shad. *Clupea Alosa.*
Alewife. *Clupea.*
Eel. *Muræna Anguilla.*
Trout. *Tracta.*
Red Perch. *Perca Fluviatalis.*
White Perch. *Perca Lucioperca.*
Pout. *Silurus Felis.*

Shiner. *Perca Nobilis.*
Chub. *Perca Philadelphica.*
Bream. *Perca Chrysoptera.*
Bret. *Clupea Minima.*
Menow.
Sucker.
Dace.

MIGRATION is not peculiar to the birds: Several kinds of fishes, have as regular periods of approach, and departure, as the birds of passage. This is the case with the salmon. In the spring, about the 25th of April, these fish begin to pass up Connecticut river, and proceed to the highest branches. About the same time, or a little later, they are found in Lake Champlain, and the large streams which fall into it. So strong is this instinct of migration in the salmon, that in passing up the rivers, they force their passage over cataracts of several feet in height, and in opposition to the most rapid currents. They are sometimes seen to make six or seven attempts, before they can succeed to ascend the falls. When they are thus going up in the spring, they are round and fat, of an excellent taste, and flavour. From the first week in May, to the second week in June, they are taken in great numbers. When they arrive at the upper parts of the rivers, they deposit their spawn, and remain there during the summer season; but become very lean, and flaccid. Towards the latter end of September, they return to the ocean; but so much emaciated, that they are not taken, or used for food. Some of these salmon in the spring, will weigh thirty five or forty pounds. They migrate only to

cold waters. None of them are ever found to the south, or west, of Connecticut river. Those that go further to the northward, and pass up the river St. Lawrence, are generally more large and rich, than those which come from the southward.

The *Salmon Trout*, in its form, dimensions, and appearance, very much resembles the salmon; but the meat is of a finer grain, and of a more delicate taste, and flavour. This trout is found in Lake Champlain, and in the rivers and ponds, which are connected with it. These fish are taken with the hook and line, like the cod and haddock. Trouts from seven to ten pounds are common. In a pond at Leicester in this state, some have been taken which weighed twenty five pounds: Others much larger have been seen leaping out of the water, which the fisherman supposed would weigh from thirty five to forty pounds.

The *Pike* or *Pickerel* abounds much in Lake Champlain. It is there called by the name of Muschilongoe, and grows to a great size. They are easily taken with a spear, and some of them have weighed forty pounds, and were six feet in length.

Of the small fish, which reside in the brooks and small streams, the most numerous and useful, are the trout, perch, and sucker. The trout, in its colour, form, and taste, resembles the salmon trout, but is of much smaller dimensions. The largest of them, will not weigh more than two pounds and an half, or three pounds. This fish is found in all the streams, which have their origin in the mountains; and

generally very near their sources, in the high lands. The perch and the sucker are also very numerous, and useful, and of nearly the same dimensions. The most uncommon instance, which I have ever seen, of the multiplying power of nature, was in the increase of these fish. At Tinmouth, is a brook about twenty or thirty feet wide, and two or three deep; in which the trout and sucker were to be found of the common size, and number. A dam was built across this stream, for the purpose of supplying water for a sawmill. This dam formed a pond, which covered by estimation, about a thousand acres, where the trees were thick, and the soil had never been cultivated. In two or three years, the fish were multiplied to an incredible number. They were become so numerous, that at the upper end of the pond, where the brook fell into it, in the spring the fish are seen running one over another; embarrassed with their own numbers, and unable to escape from any attempt that is made to take them. They are taken by the hands, at pleasure; and the swine catch them without difficulty. With a net, the fishermen often take a bushel at a draught, and repeat their labour with the same success. Carts are loaded with them, in as short a time, as the people could gather them up, when thrown upon the banks; and it is customary to sell them in the fishing season, for a shilling by the bushel. While they have thus increased in numbers, they are become more than double to their former size. This extreme increase does not seem to be derived from any other cause, than that of collecting the waters

in such a quantity, as to form the pond; and thus increase the means of subsistence, by carrying the water over a large tract of rich, and uncultivated land. Events of a similar nature generally take place, when an artificial pond is made in any part of the country, not before cultivated; and probably from the same cause.*

In the production of fish, nature seems to have been extremely prolific, in every part of America. Their species, their multiplying power, and the age at which they become prolific, are beyond our knowledge, and computation. The brooks, rivers, ponds, and lakes, are every where, stored with them. The sea coasts are one continued range of fishing banks, covered with cod, haddock, and other animals of the ocean. The *whale* is generally esteemed the greatest animal, which nature has produced in the water: In the seas of America, this is to be found in its greatest perfection of magnitude and numbers.

Fossil shells are frequently found at some distance from the banks of our lakes, rivers, brooks, and meadows. Some have been found on the sides, or rather in the gullies of the mountains. Such productions require a collection of water for their formation. Naturalists have proposed many theories and speculations,

* THE number of fish in the rivers of South America, is fully equal to any thing that takes place, in the northern parts of the continent. "In the Maragnon," says P. Acugna, "Fish are so plentiful, that, without any art, they may take them with their hands."

"In the Orinoco," says P. Gumilla, "besides an infinite variety of other fish, tortoises or turtle abound in such numbers, that I cannot find words to express it. I doubt not but that such as read my account will accuse me of exaggeration: But I can affirm, that it is as difficult to count them, as to count the sands on the bank of that river." Hist. del. Orenoque, ii. c. 22, p. 59. M. de la Condamine confirms their accounts.

to account for the collection of water in such places, where there are now no appearances of the kind.

In their descent from the mountains, the brooks and rivers must every where have formed themselves into lakes, ponds, and small collections of water: And it was not until after long periods of time, that they could form for themselves channels of such depth, as to discharge the waters which had been thus collected. Some of these ponds were formed on the sides of the mountains, and others overflowed what are now called the meadows; and many of their ancient phenomena yet remain. The waters have long since formed the channels, by which they are now discharged into the ocean. In such places, fossil shells are yet found: they are the productions of former times, when those places were covered by the waters descending from the mountains; then collected into quantities for want of natural channels, now drawn off by the depth of the channels which the waters have formed, and constantly rendered more and more deep.

REPTILES AND INSECTS.

THAT class of animals, which are distinguished by the names of reptiles, and insects, are numerous in every part of America. They abound the most, and are of the largest size, in the hottest parts of the continent. In a climate so cold as that of Vermont, they are comparatively of but a few species, and small in their size; but they exist in great numbers. The following are our

AMPHIBIOUS REPTILES.

The Turtle, two species. *Testudo.*
Toad. *Rana.*
Frog, five. *Rana.*
Lizard. *Lacerta punctata.*
Swift. *Lacerta fusciata.*

THERE are several accounts in natural history, of toads being found in the hearts of trees, and in solid rocks, wholly inclosed, and shut up from the air, and all appearance of food; and being taken alive, out of such situations. In the Memoirs of the Academy of Sciences, there is an account that in the year 1731, a toad was found in the heart of an old oak near Nantz, without any visible entrance to its habitation. From the size of the tree, it was concluded, that the toad must have been confined in that situation, at least eighty or an hundred years.* We have several instances in Vermont, equally extraordinary. At Windsor, a town joining to Connecticut river, in September, 1790, a living frog was dug up at the depth of nine feet, from the surface of the earth. *Stephen Jacobs*, Esq. from whom I have this account, informs me, that the place where this frog was found, was about half a mile from the river, on the intervale lands, which are annually overflowed by its waters. At Castleton, in the year 1779, the inhabitants were engaged in building a fort, near the centre of the town. Digging into the earth five or six feet below the surface, they found many frogs, apparently inactive, and supposed to be dead. Being ex-

* Smellie's Philosophy of Natural History, p. 122.

posed to the air, animation soon appeared, and they were found to be alive, and healthy. I have this account from General *Clarke*, and a Mr. *Moulton*, who were present when these frogs were dug up. Upon viewing the spot, it did not appear to me, that it had ever been overflowed with water, but it abounded with springs. A more remarkable instance was at Burlington, upon Onion river. In the year 1788, *Samuel Lane*, Esq. was digging a well near his house. At the depth of twenty five or thirty feet, from the surface of the earth, the labourers threw out with their shovels, something which they suspected to be groundnuts, or stones covered with earth. Upon examining these appearances, they were found to be frogs; to which, the earth every where adhered. The examination was then made of the earth, in the well, where they were digging. A large number of frogs were found covered with the earth, and so numerous, that several of them were cut in pieces by the spades of the workmen. Being exposed to the air, they soon became active; but unable to endure the direct rays of the sun, the most of them perished. This account is from Mr. *Lane*, and Mr. *Lawrence*, one of the workmen, who were both present when the frogs were dug up. From the depth of earth, with which these frogs were covered, it cannot be doubted but that they must have been covered over in the earth, for many ages, or rather centuries. The timber on the adjacent land had grown very large; a pine tree not far from the well, was more than twelve feet in circumference. The appearances denote that

the place from whence these frogs were taken, was once the bottom of a channel or lake, formed by the waters of Onion river. In digging the same well, at the depth of forty one feet and an half from the surface, the workmen found the body of a tree eighteen or twenty inches in diameter ; partly rotten, but the biggest part sound. The probability is, that both the tree, and the frogs were once at the bottom of the channel of a river, or lake ; that the waters of Onion river, constantly bringing down large quantities of earth, gradually raised the bottom : that by the constant increase of earth and water, the water was forced over its bounds, and formed for itself a new channel or passage, in its descent into Lake Champlain. How vigorous and permanent must the principle of life be, in this animal ! Frogs placed in a situation, in which they are perpetually supplied with moisture, and all waste and perspiration from the body prevented, preserve the powers of life from age to age ! Centuries may have passed since they began to live, in such a situation ; and had that situation continued, nothing appears, but that they would have lived for many centuries yet to come !*

SERPENTS.

The Rattle Snake. *Crotalus horridus.*
Black Snake. *Coluber constrictor.*
Green Snake. *Coluber saurita.*
Striped Snake. *Anguis cryx.*
Water Adder. *Coluber fasciatus.*

* Appendix No. III.

THESE are all the species of this kind of animals, of which I have any account; and these are but seldom to be met with in Vermont.

THERE is a curious phenomenon respecting two of these species, which seems to deserve further inquiries. The farmers, and other persons who frequently meet with the rattle snake, and with the black snake, seem universally to believe that each of these animals, have a power of *fascination*; or as it is commonly expressed, of *charming* birds, and other small animals. The account which is generally given, is this: the snake lies stretched out his full length, in some open place; his head raised eight or ten inches from the ground; his colours glow with their greatest brightness; his eyes play with an uncommon brilliancy, and fire; and are steadily fixed on the enchanted animal. During this scene, the bird appears to be in the greatest distress; is constantly putting forth the most mournful accents; at the same time, is performing a number of irregular circular motions; and at the end of each, approaches nearer to the snake: this scene continues, and is incessantly repeated, until the bird, without any power to escape, comes within the reach of the voracious jaws of the serpent, when it is instantly seized: But if the snake is attacked, or so disturbed during the operation, that his attention is turned another way, the charm is broken; and the bird recovering his liberty, immediately flies off. I have never myself seen any thing like this fascinating scene; but I have had accounts exactly similar from more than a dozen persons,

whose integrity I cannot in the smallest degree call in question. There is room, however, for mistakes in such kind of observations ; and in most of them, the snake was disturbed, before the scene was finished. That there is something curious in these appearances, cannot be doubted. But whether these snakes have such powers, or by what causes such events are produced, seems to require more accurate observations, and a more philosophical investigation.*

INSECTS.

The insects are too minute, and numerous, to be particularly described. The most common are the beetle, grasshopper, cricket, butterfly, firefly, blackfly, moth, flea, ant, musqueto, spider, hornet, wasp, bumble bee, honey bee, various kinds of bugs, and several species of worms. Of these the musqueto is the most troublesome. The weavil, the Hessian fly, and the locust, are not known in this part of the continent.

Of the bee, there is a species which is generally called with us, the *bumble bee*. This is indigenous to the country, and much larger than the common bee. It forms a nest upon the ground ; and produces a species of honey, in transparency, beauty, and sweetness, fully equal to that of the honey bee ; but much less in quantity. Whether the honey bee is a native of the country, seems to be viewed by some as uncertain. I do not find much reason to doubt, but that it was in America, before the Europe-

* Appendix No. IV.

ans made their first settlements in the country. From the pictures and tribute rolls of the Mexicans, it appears that the honey bee was known, and that honey was one part of the annual tribute which was paid to their emperors before the arrival of the Spaniards. *Clavigero*, in his history of Mexico, confirms these accounts ; and mentions six kinds of bees which make honey ; two of which have stings, and one in all respects agrees with the honey bee of Europe. A species of the honey bee, but without stings, was found in Chiapa, and Yucatan. The same according to Margrave, was found in Brasil. In 1540, among the provisions of the natives of Florida, " a pot full of honie of bees," was found by Soto. From these accounts, it is not to be doubted, but that the honey bee was indigenous, and had spread over the empire of Mexico. To the east, it had advanced as far as Florida ; And to the south, to Yucatan, nd the country of Brasil. To an immense ntry, then, the honey bee w ndigenous, r common. There was no cause n he nature c he animal, or of the climate, to] event their spreading to the northward. They live in the hollow trees in the woods of Ver nt, from year to year ; and are always found of their full dimensions, vigorous, and plentifully supplied with honey ; and they bear the cold of our winters, much better in the hollow of a large tree, than in any of our artificial bee hives. They live and abound in Russia, where the climate is much more severe, than it is in this part of America : They would therefore naturally extend, and spread along the country, where they could find the means of

subsistence, and a climate not unsuited to their support. It has always been found far beyond the English settlements. From our earliest acquaintance with Lake Champlain, it was to be found in the open lands, along those shores, at the distance of an hundred miles from the English or French settlements; and long before those settlements had begun to attend to the cultivation of this animal: And from the first settlement of New England, hunting for their nests has been a favourite and profitable amusement. But as the chief food of the bee is from the blossoms and flowers of plants, it does not multiply so fast in the uncultivated parts of the country, as where the improvements of agriculture and gardening, are constantly producing a greater variety, and number of vegetables.

To the tribes of reptiles and insects, we have affixed the idea of something, unpleasant, diminutive, or odious. The designs, the wisdom, and the power of the Creator, are not to be estimated by such feelings, fears, and prejudices. The reptile, the insect, the fish, the bird, and the quadruped, one as much as the other, denote wisdom, power, and design, in the author of nature: And they are alike evidences, and instances, of the power of animated nature, in the different parts of the earth. We may therefore as justly and clearly deduce the energy and force of animated nature in any country, from the number and magnitude of the insects, as from the species and dimensions of any other animals. The European philosophers have dwelt with wonder and astonishment, on the numbers and size of these animals in America.

The facts are justly stated, in several of their accounts; and they ought to have concluded from them, that the soil was uncommonly rich, fertile, and luxuriant. Anxious to find marks of degradation in America, they have almost universally advanced a contrary conclusion: that this prolific power of nature, denoted an uncommon corruption, and degradation of climate. No conclusion was ever further from the truth, or more remote from probability. It is only a rich soil, and a temperate climate, which can produce what they call a rank vegetation, or numerous reptiles and insects, of the largest size.

From this imperfect view of our quadrupeds, birds, fishes, and insects, instead of finding nature but weak and feeble in America, as M. de Buffon has supposed;* her animals appear to be marked with an energy, and a magnitude, superior to what is found in Europe; and equalled only, by the magnificent and vigorous productions of Asia.

* "La nature vivante est beaucoup moins agissante beaucoup moins forte." Hist. Nat. xviii. 122. edit. Paris, 1764.

CHAPTER VII.

ORIGINAL INHABITANTS. *The Employments, Civil Government, System of War, Education, Manners, and Customs of the Indians; the Advantages, and Disadvantages of the Savage State.*

IN the formation of the mountains, rivers, vegetables, and animals, the powers of nature appear to rise in a steady and beautiful progress. This progress seems to be completed in the production of a rational, moral, and accountable animal. This animal is MAN: And he evidently appears in every part of the globe, to be at the head of all the productions of nature: But the men of different countries and nations, appear to be very different from one another.

THE original inhabitants of this country were the *Indians*: These were the only species or kind of men, that had spread over America. It will be more difficult to give a just account of *the man of America*, than to describe its vegetables, and animals. The latter are subject to stated, and invariable laws; they pass through but few changes and variations, and are always to be found in that state, in which nature placed them. Man is subject to a great variety of alteration, and improvement. In his rudest and most simple state, he appears but little superior to the brute; in his highest improvement and polish of manners, he appears at an infinite remove from the bare animal; and in all the

stages of his progress from the one state to the other, he passes through an endless variety of situations and circumstances, which are constantly giving a new appearance to his capacity, powers, passions, manners, and pursuits. The natural history of man is therefore the most difficult, but it is also the most useful and important subject we can contemplate. In examining the history of the Indian of America, we shall find man in the most simple, rude, and unimproved state, in which he has ever been placed, or viewed.*

Appearance and Countenance. The appearance of the Indians was different from any, under which man had ever been viewed before. The colour of their skin is of a reddish brown, nearly resembling the colour of copper, but rather darker. Their faces are broad, the nose appears flattish, their eyes black, small, and very active. The hair of their heads is always black, coarse, long, and perfectly straight; and they generally appear without any beard. The men are taller than the Europeans, but rarely corpulent; and their bodies appear to be firm, strong, and well proportioned. Their features are regular and well adjusted, but their countenance discovers something wild, fierce, and sullen. None of them are seen crooked, mutilated, or deformed; defective in any of their senses, or deficient in any of their bodily organs; but straight, well built, and robust. In the ap-

* THE following account relates chiefly to the Indians in the northern parts of America. I have received much assistance from the writings of Dr. Robertson, and other authors. But the authorities on which the accounts are founded, are chiefly the relations of those persons who have lived among the Indians, and been intimately acquainted with them.

pearance, aspect, and countenance of the Indians, there is an uncommon uniformity, and resemblance. It is the same in all climates, and in all the tribes of America. It does not vary with heat, cold, situation, employment, or other circumstances; but the Indian countenance has the same combination of features, and peculiarity of aspect, in every part of America.

EMPLOYMENT, AND METHOD OF PROCURING SUBSISTENCE. The food proper for man, is to be found in every part of the earth. But the means and the method of procuring it, are different among different nations, and in different stages of society. The savages of North America had discovered the properties and effects of those seeds, berries, and roots, which the earth spontaneously produces; and one part of their food was derived from this source. Fishing was another method which they used to procure subsistence. The great plenty and variety of fish, with which the rivers of America abounded, rendered this kind of provision easy to be procured, and of great use. The Indian had acquired much skill and address, in his method of catching the fish; and he was accustomed to dry, and smoke them, in order to preserve them. The falls of rivers were the places, to which they most resorted for this purpose: And most of these falls were the places, where some of their tribes or small companies resided: And they were generally distinguished by some particular Indian name. A more general and effectual method of support, was hunting. The fruits which the earth spontaneously produced, were but few, and of short

continuance. A few tribes only could be accommodated, by the vicinity and convenience of a river : But game was every where to be found. The bear, the deer, the beaver, the fox, and other animals, were in great numbers, and in every part of the northern continent. From these, the Indian derived his most sure, and plentiful support. But this method of procuring food, required great efforts of invention, and activity. The strength, the fierceness, and the swiftness of the wild animals, the feebleness of the weapons, the bow, arrow, and club, with which the savage attacked them, joined to make the business of the hunter laborious and difficult ; and called forth all the active powers of the savage. And here, he appeared to the greatest advantage ; fertile in invention, sagacious in distinguishing and observing, nice and accurate in tracing the animal ; indefatigable, and persevering in the pursuit. An employment which thus gave exertion to all the invention, courage, force, and vigor of the man, naturally became the most honourable employment ; And the most dexterous hunter became the most distinguished savage of the tribe. To these methods of procuring food, were added some feeble attempts in agriculture. Indian corn, beans, pompions, and squashes, were the only plants they cultivated. The culture of these was wholly in the hands of the women. Without the use and knowledge of any of the domestic animals, altogether destitute of the proper instruments of husbandry, their efforts were weak and languid ; and the supplies they derived this way, were but small.

THESE were all the methods of procuring food, with which the Indians were acquainted. They afforded them but a scanty and precarious support. When the game was plenty, and the hunter successful, they had an abundance of food. When the season of the year was unfavourable, and their success but small, they were reduced to scarcity and want. Their sufferings this way, were sometimes extremely severe. And there was no year, in which they were not subject to these extremes, of great plenty, and severe famine.

THE appetite of the Indian conformed to this state of things. In the seasons of plenty, the savage indulged himself to great excess: In the time of famine, the Indian bore his hunger with astonishing patience, and firmness. So accustomed was he to this irregular method of living, that excess and famine were equally familiar to him; and his constitution and health remained firm and vigorous, under the extremes of both.

FROM this situation and employment of the Indian, all the *regulations*, *customs*, *advantages*, and *disadvantages* of the savage state, were derived.

SOCIETY. When any considerable number of the human race subsist near each other, they will always combine in some form of society. Mutual wants, dangers, dependencies, interests, and benefits, operating with the appetite man has for society, will not fail to produce this effect. The situation and employment of the Indians, determined what the nature and extent of this society must be, among them. The chief source of subsistence among them, was

hunting. On this account, a large territory became necessary for the support of a small number of people. Like the game on which they subsist, they must be dispersed over a large tract of country, or they cannot procure food. In this stage of society, the extent of it is derived from its situation. Its territory must be large, the number of people will be small, and all hostile tribes must be kept at such a distance, as not to encroach upon the territory or the game. This was the state, in which the savages were found. Divided into a number of tribes, small in the number of people, large in the extent of territory, and generally unfriendly and hostile to each other.

NATURE OF THEIR CIVIL GOVERNMENT. From this state of society, arose a species and form of government peculiar to the Indians. The *design* and *object* of government among the savages, was not the property, security, or conduct of the individual; but the property and safety of the tribe. The idea of property is suggested by nature; and was clear, distinct, and just, in the mind of the rudest Indian. The fish in the river, and the game in the forest, were not the product of his care or labour; and he had no idea that they belonged to him, more than to any other individual. But when they were acquired by his personal exertion, no other savage doubted but that they were become his particular and exclusive property. The river, or the forest, from which they were taken, were not personal but public property: they belonged to the tribe. No individual claimed a right to them, in preference to, or

exclusive of others. These were the property of the tribe, belonging equally to all, and to which all had a right to repair in quest of subsistence, and had an equal and common privilege. When the Indian builded his house, or planted his corn, no one had a right to molest him; the house and the corn became his. When he relinquished his possession, any other of the tribe had a right to take possession, and pursue the same employment that he had done. The fruits of their own labour and industry, was always the property of the individual: The river, the forest, the hunting ground, the land or the territory, was the property of the tribe. The former was of so simple a nature, so well understood, and so universally agreed to, that few controversies could ever arise about it; common custom and consent was sufficient to adjust and regulate every thing of this nature. The latter contained all the property, the means of subsistence, and that on which the whole tribe depended for their existence. This was the great object and aim of their government; to protect and defend that, on which the whole tribe subsisted. In such a state of society, the injuries that would be done to individuals would not be many in their number, or often of such a kind, as to endanger the existence or sovereignty of the tribe. The right of redressing them, was therefore left in private hands. This has always been the case, in the infancy of society and government. If injuries were done, if blood was shed, it belonged to the friends and family of the injured person to seek redress. If the chiefs interposed, it was only by way of

counsel and advice. The friends of the injured person might accept of their advice, or of the reparation offered by the aggressor, or they might reject it : If it was accepted, all was settled in a quiet and friendly manner : If rejected, nothing remained but to pursue the aggressor with a revenge and rage, that aimed at nothing less than destruction and death.

The *form* and *manner* of the Indian government, was the most simple that can be contrived, or imagined. There was no king, nobility, lords, or house of representatives, among them. The whole tribe assembled together in their public councils. Destitute of writings, records, and history, to preserve the memory of their public transactions ; their most aged men became the depositories, of what had been gathered from experience, observation, and a knowledge of their former transactions. It is by them that the debates and consultations are chiefly carried on. Their councils are slow, solemn, and deliberate. Every circumstance that they can foresee, is taken into consideration. The probable advantages and disadvantages of every measure, are examined and weighed. All the prospects of success and disappointment, are revolved in their debates ; and nothing is omitted, which occurs to their views or expectations. The whole business is a scene of consultation, and advice. And the advice has no other force or authority, than what is derived from its supposed wisdom, fitness, and propriety.

The *strength* and *power* of the government, is placed wholly in the public sentiment. The chief has no authority to enforce his counsels,

or compel to his measures. He is fed and clothed like the rest of the tribe. His house and furniture are the same as those of others. There is no appearance, or mark of distinction: No ceremony, or form of induction into office: No ensigns or tokens of superiority, or power. In every external circumstance, the chiefs are upon a level with the rest of the tribe: And that only which gives weight and authority to their advice, is the public opinion of their superior wisdom and experience. Their laws stand on the same foundation. There was no written law, record, or rule of conduct. No public precedent, established courts, forms or modes of proceeding. The causes and occasions of contention were so few, that they did not much affect the tribe. And when the chiefs interposed in the concerns of individuals, it was not to compel, but only to counsel and advise them. The public opinion pointed out what was right, fit, and proper to be esteemed laws and rules of conduct. These rules or laws derived from nature, were seldom wrong, obscure, or inconsistent; but generally plain, clear, and useful. Their penalties and punishments were derived from the same source. Loss of character, and reputation, disgrace, exclusion from the tribe, and death, were the punishments to which offenders were exposed, according to the nature und aggravation of their crimes. These punishments were not described, and assigned to a particular crime by a written law; but they rested upon the public opinion of the tribe, and derived great force and power from it. An offender who had been greatly and deeply guilty,

fled from the tribe, as the only way to safety, peace, and rest.

THERE was a *fitness* and *propriety* in this government, or rather, it was fully adequate to its end and design, and to the situation and state of the savage. A modern statesman would smile at this idea of Indian government: And because he could find no written constitution, or bill of rights, no mutual checks, and balances, accountability and responsibility, pronounce it weak, foolish, and contemptible. But it was evidently derived from the dictates of nature, and well adapted to the state and situation of the savage. The idea of property was so plain and clear, and the objects to which it related were so few and simple, that there was no need of a code of laws to describe and define it. The rights of the individual, his freedom and liberty, were so strongly felt, and so universally acknowledged, that no person dared to invade them. The crimes of the vicious received a just and a full punishment, in the disgrace, contempt, and danger, they brought upon the guilty. The individual had all the security, in the public sentiment, custom, and habit, that government can any where afford him. All that was to be defended was the territory; the interest, the independence, and sovereignty of the tribe; and every part of the government was adapted and designed to form, to animate, and to inflame, a national spirit of vigour and independence.

AGREEABLY to its nature and design, the *tendency* and *effect* of the savage government, was equality, freedom, and independence, among

all the members of the tribe. In respect to rights and privileges, the savage knew no superior. Of abasement, humiliation, dependence, or servitude, he had no idea. Depending on his own exertions for food and raiment, he had never looked to another for assistance, promotion, or wealth. When the interest of the tribe was in question, or in danger, the wisdom and experience of years was consulted, to advise and determine : And their counsels became matters of great respect. But constraint, compulsion, and force, was the object of the highest detestation and horror. Every measure of the government tended to confirm and increase the spirit of freedom, equality, and independence, and to render it strong, fierce, and permanent, through the whole tribe.

System of War among the Indians. The civil regulations of the savages were all designed to qualify and prepare them for war. Among the causes that lead to this, an opposition of interests, was the most common and powerful. No people ever had more clear, or more just ideas of their own rights and property, than the Indians. They not only understood their own personal rights, but they were perfectly well acquainted with the rights and property, that were vested in the tribe. Each tribe claimed the soil in their own domains. This right was viewed as complete, perfect, and exclusive : Such as entitled them to the full and entire possession ; and to oppose by force and violence, all encroachments upon the soil, or game, in any part of their territories. The bounds of these territories were extensive, and

ill defined. Real or supposed encroachments and injuries, were constantly taking place. Hence arose innumerable subjects of dispute and controversy, which easily inflamed the fierceness of the savage temper, and brought on mutual injuries, reproaches, hostilities, and war. In this state, most of the Indian tribes were found. Interest had become a source of discord, among the neighbouring tribes. From this cause, arose most of their inveterate and perpetual wars.

The manner in which the Indians carry on their wars, is very different from that of civilized nations. To defend themselves against an enemy, they have no other fortification but an irregular kind of fortress, which they call a castle or fort. It consisted of a square without bastions, surrounded with pallasadoes. This was erected where the most considerable number of the tribe resided, and was designed as an asylum for their old men, their women, and children, while the rest of the tribe were gone out to war. The weapons of the Indian were a club made of hard wood, a bow and arrow. Thus armed, the Indian takes with him a small bag of corn, and is completely equipped for a campaign. When he takes the field, it is with such a number of warriors as the tribe can supply. During their march, they are dispersed in straggling companies, that they may better supply themselves by hunting. When they approach near to the enemies' frontiers, their troops are more collected: All is then caution, stratagem, secrecy, and ambuscade. Their employment as hunters has taught them great

address and vigilance, in following and surprising the game. Their mode of war is the same, as that of hunting. With great ingenuity, they will find and follow the track of their enemies: With a surprising patience and perseverance, they will wait for the moment, when they find him the least able to defend himself. And when they can find an enemy unprepared, they make their attack with great fury, and with pretty sure success. In their battles they always endeavour to secure themselves behind the trees or rocks, and never meet their enemy in the open field, or upon equal terms, if they can avoid it. The method of the Europeans, of deciding a battle in the open field, they regard as extreme folly and want of prudence. Their established maxims are to obtain a superiority in situation, numbers, concealment, or some other circumstance before the battle: In this way, to preserve the lives of their own party, and destroy their enemies, with as little loss as possible to themselves. A victory obtained with the loss of many of their own party, is a matter of grief and disgrace, rather than of exultation: And it is no honour to fall in the field of battle, but viewed rather as an evidence of want of wisdom, discernment, and circumspection. When the attack is to be made, nothing can exceed the courage and impetuosity of the savage. The onset begins with a general outcry, terminating in a universal yell. Of all the sounds that discord has produced, the Indian warwhoop is the most awful and horrid. It is designed and adapted to increase the ardor of those who make the attack, and to carry terror

and horror into the feelings of those, on whom the attack is made. The Indians immediately come forward, and begin the scene of outrage and death. All is then a scene of fury, impetuosity, and vengeance. So great is the rage of the savage, that he has no regard to discipline, subordination, and order. Revenge, takes an entire possession of his soul : Forgetful of all order, regardless of discipline and danger, he aims only to butcher and destroy. If the Indians remain masters of the field, they always strip and scalp the dead. Leaving the bodies of their enemies, naked, unburied, and often mangled, they carry off the plunder and scalps ; and make a very swift and sudden retreat. Upon their approach to their own tribe, a herald is sent forward to announce the event : the tribe is collected, and the conquerors make their entry with their ensigns of triumph : the scalps stretched upon a bow, and elevated upon a pole, are carried before them, as the tokens of their valour and success, and monuments of the vengeance they have inflicted upon the enemies of their country.

The prisoners which they have taken, make an important part of their triumph. The savages are anxious to take as many of these as possible. During their march, they are generally treated with a degree of humanity and kindness ; but the greatest care is taken to prevent their escape. When they arrive at the place of their destination, the old men, women, and children of the Indian tribe, form themselves into two lines, through which the prisoners must run the gantlet to the village. If the prisoner is young,

active, and a good runner, he makes his way through the lines without receiving much injury. If he is weak, old, and infirm, he receives much damage by the blows, stripes, and bruises, he receives. When this scene is finished, the prisoners are conducted to the village, treated with apparent good humour, and fed as well as the Indians' fare admits.

To the village thus assembled, the head warrior of the party relates every particular of the expedition. When he mentions their losses, a bitter grief and sorrow appears in the whole assembly. When he pronounces the names of the dead, their wives, relations, and friends, put forth the most bitter shrieks, and cries. But no one asks any question, or interrupts the speaker with any inquiry. The last ceremony is to proclaim the victory. Every individual forgets his own loss and misfortune, and joins in the triumph of his nation. Their tears cease, and with one of the most unaccountable transitions in human nature, they pass at once from the bitterness of sorrow to all the extravagance of joy. The whole concludes with a savage feast, songs, and dance.

The fate of the prisoners is next to be decided. The elders and chiefs assemble and deliberate concerning their destiny. The women and children are disposed of, according to the pleasure of their captors; but they are seldom or never put to torture, or death. Of the men some are appointed to supply the places of such Indians as have fallen in battle. These are delivered to their friends and relations, and if they are received by them, they have no suf-

ferings to fear : they are adopted into the family, and succeed to all the privileges of the deceased ; and are esteemed as friends, brothers, and near relations. But if they are not received and admitted into the family, or if they are destined to be put to death, a most distressing and horrid scene ensues.

A stake is fixed firmly in the ground. At the distance of eight or ten feet, dry wood, leaves, and faggots, are placed in a circle round the stake : And the whole village is collected, to bear their part in the tragedy, which is to ensue. The prisoner is led to the stake, and tied to it by his hands, in such a manner that he may move freely round it. Fire is set to the wood, that as it runs round the circle, the unhappy victim may be forced to run the same way. As the sufferings of the prisoner begin to become severe, the acclamations of the spectators begin. The men, women, and children, strive to exceed each other, in finding out new and keener methods of torment. Some apply red hot irons, others stab and cut with their knives, others mangle and tear off the flesh, others again bite off the nails and joints, or twist and tear the sinews. Every species and degree of cruelty, that savage rancour and revenge can invent and apply, is tried upon the wretched sufferer. But great care is taken that the vital parts may not be so injured, as to bring the torments of the victim to a speedy end. In this horrid situation, the sufferer is undaunted and intrepid. He reviles and insults his tormentors. He accuses them of cowardice, meanness, and want of spirit ; as ignorant, unskilful, and des-

titute of ingenuity and invention in the art of tormenting. Not a groan, a sigh, a tear, or a sorrowful look, is suffered to escape him. To insult his tormentors, to display undaunted and unalterable fortitude in this dreadful situation is the most noble of all the triumphs of the warrior. With an unaltered countenance, and with the decisive tone of dignity and superior importance, the hero proceeds with great calmness to sing the song of his death—"Intrepid and brave, I feel no pain, and I fear no torture. I have slain, I have conquered, I have burnt mine enemies; and my countrymen will avenge my blood. Ye are a nation of dogs, of cowards, and women. Ye know not how to conquer, to suffer, or to torture. Prolong and increase my torments, that ye may learn from my example how to suffer and behave like men!" With such unconquerable magnanimity and fortitude, the sufferer perseveres under every method of torment and torture. Wearied with cruelty, and tired with tormenting a man whose fortitude they cannot move, one of the chiefs in a rage concludes the scene, by knocking the prisoner on the head, or stabbing him to the heart.

These scenes however were not common. They seem to have been kind of honours, reserved for the warriors; and were the trials of their courage and fortitude. And nothing was esteemed more base and ignominious, than to shrink from them, or to shew any sense of fear or pain under them.

When the prisoners were adopted into the tribe of the conquerors, nothing could exceed

the kindness and affection, with which they were treated. All distinction of tribes was forgotten; they held the same rank as the deceased person, whose place they filled; and were treated with all the tenderness due to the husband, the brother, the child, or friend. And it was generally the case, that the savages avoided abuse and cruelty to the women and children, that fell into their hands.

The Indian method of carrying on a war, was so contrary to the maxims and customs of all civilized nations, that some of the European writers, judging from their own customs, have concluded it was founded on cowardice, and arose from an ignoble and timid spirit, afraid to meet its opposers on equal ground, and depending wholly on craft, and not at all on courage and firmness of mind. No conclusion was ever further from the truth. When placed in a critical and dangerous situation, no people ever discovered more valour, firmness, and intrepidity. When subdued, an Indian was never known to ask for his life. When compelled to suffer, the Indian bore it with a steadiness, a fortitude, and a magnanimity, unknown to all other nations; and of which, there are no examples in the history of war. His method of war did not arise from a sense and fear of danger; he was well acquainted, and always in the midst of this; but it arose from his situation and employment, and was perfectly well adapted to it. From his situation and employment as an hunter, he acquired the art of ambuscade and surprise; and the method with which he could best succeed in taking his game, he found to be

the most successful to ensnare and overcome his enemy. The situation and state of the country, overspread with thick forests, lead to the same method. The situation of the tribe, scattered and dispersed in the woods, suggested the same idea. The method of fighting could not be in the open fields, but among the trees. And he wisely placed the point of honour, in the public good; where the prospect and the probability of his success lay. Had the honour of the Indian warrior been placed, in courting fame and victory in the open field, the whole tribe would have been destroyed by the effusion of blood that must have succeeded. His maxims therefore were better chosen, and they were such as every circumstance in his situation and employment naturally led him to: Not in an useless ostentation of daring courage and boldness, but in the public utility and advantage. So far as an enterprize depended on secrecy, subtlety, surprize, and impetuosity, the Indian method of war seems to have been fully equal to the European. The Spaniards, the French, the English, and the States of America, have had many and painful proofs of their address and prowess in this method. But when a fort was erected, or a small fortification to be carried, the Indian method of war wholly failed. Neither their arms, their arts, or their customs, were of any avail here. Wholly unacquainted with the art of fortification, they could neither erect, or take a fort of any strength. When the Europeans had once got possession of any part of their country, and erected a small fortification in their territories, they held it by a

sure possession. The savages were wholly unable to dispossess them by their method of war, and nothing was left for them but to retreat further into the forests. In this way the English, and French were making constant advances into their country ; and their art of war afforded them no sufficient means, either to prevent or to redress it. But when the Europeans followed them into the woods, where their strength and art might be employed to advantage, the Indians generally surprised and defeated their armies, with great havoc and slaughter.

Education. The subsistence and safety of the tribe depended so much upon the hunter, and warrior, that these became of course the most necessary, useful, and honourable professions. When in pursuit of food, the young men put themselves under the direction of the most noted and successful hunter. Going forth to war, they followed the most renowned and successful warrior. Eminence in these professions was the surest way to subsistence, to distinction, to honour, and renown. This was the basis, and formed the whole business of education, among the savages. To train up the youth to address and dexterity in hunting ; to make him patient, firm, persevering, in hardship and suffering ; inveterate, fierce, and intrepid in destroying his enemies ; was the chief aim and design of the parent. Every thing that had no connexion with this, was neglected and despised. The arts of acquiring knowledge, governing the passions, refining the manners, and cultivating improvements, were unknown and undesired by the savage. He never corrected

or restrained his child, taught him to moderate his appetites and passions, to submit to parental, or any other authority : On the contrary he was trained up to take care of himself, to gratify every inclination and appetite, and to look for food and honour in his own exertions, independence, and superiority. The parent wished and aimed to form his son to hardship and danger, to bear fatigue, famine, and torture, to ensnare and take the game, and to carry destruction and vengeance upon his enemies. To this plan of education, the whole aim and conduct, the instruction, the manners, and the example of the parent, was directed : the only aim and design, was to make the youth an able and accomplished hunter, and warrior. Neither the views of the parent, or the wishes and aims of the child, ever rose any higher, or extended any further than this.

NEXT to the civil and military regulations, the CUSTOMS and MANNERS of the Indians claim our attention. The customs and manners of a nation, always constitute a distinguishing part of the national character ; and as they vary with the progress of society, they serve to ascertain, and mark the different stages of it. In several respects, the manners and customs of the Indians were different from those of other people, and are marked with a singularity peculiar to the savage state.

GRAVITY OF APPEARANCE. A gravity of appearance and countenance always engages our attention, when we are in the company of the Indians. Placed in a situation of constant difficulty and danger, depending altogether upon

himself, and having ever before him pursuits, which to him are of the highest importance, the savage becomes extremely grave and serious. Every thing in his appearance and behaviour, is marked with this gravity of aspect. His behaviour to those around him, is decent and modest. His words are few and significant, and generally upon some matter of business; scarcely ever for merriment or diversion. So great is their habit of gravity, seriousness, and silence, that it rather bears the appearance of melancholy and sadness.

Treatment of Women. A promiscuous intercourse between the sexes, scarcely ever took place among the human race. The relation of husband and wife, has been every where understood, adopted, and acknowledged; and this was universally the case among all the tribes of the American Indians. Where the difficulty of procuring subsistence was not easily to be removed, the man had generally but one wife. Where the means of subsistence were in great plenty, and easily to be attained, the savage had often a plurality of wives. But in general, the Indian family consisted of one man and woman, and their children. This union generally subsisted during the lives of the parties; but if it became a matter of choice to separate, the marriage union was dissolved, and no cause or ceremony was necessary, but choice and consent. It is not until the refinements of society have taken place, that women acquire the rank, consequence, and importance, to which they are so justly entitled. To despise, to degrade, and to abuse them, has been the

practice of every nation while it remained in the savage state. Without tenderness, without delicacy, without refinement, the heart of the savage does not look for pleasure in the beauty, chastity, and modesty ; in the tenderness, delicacy, and affection ; or in the attachment, conversation, and refined manners of the female ; but in the labours and menial services she is able to perform. In this stage of society, marriage is not a tender attachment, or a union of refined and delicate affections between the sexes ; but altogether an animal inclination, the bare instinct of nature. Placing all excellency in strength and courage, the male views the female as every way inferior to himself ; not fitted for honourable employments, but destined to inferior purposes and services. Of consequence, the condition of women in the savage state becomes degraded, mortifying, and subject to servitude. The savage assigns to his wife the care of the children, the business of labouring in the field, and all the services of domestic care and difficulty. Among the Indians, this degradation of the female was carried to its greatest extreme. Every thing most valuable in food, dress, and ornament, was reserved for the man : the most laborious, fatiguing, and disagreeable services, were assigned to the women. Doomed to incessant toil and slavery, the women perform their perpetual tasks without pity, without compassion, without praise, and without the gratitude of their husbands. To this degraded, unhappy state, were the women reduced among all the Indian tribes.

Dress. The same pursuit that supplied the Indian with food, provided also his clothing. This was made of the skins and furs of the animals they took in hunting: these served the purposes of covering, and modesty, none of the northern Indians ever appearing naked. In those nations where opulence and luxury prevail, dress becomes a complicated, a profitable, and a curious art: And beauty acquires new force and power, from ornament and fashion. Hence it becomes a most lucrative business in polished societies, to invent and supply the modes, fashions, materials, and ornaments for dress. The savage was not without his taste for ornament, and fashion. His hair was dressed in many, and in very singular forms. His nose and ears had pieces of gold, shells, or shining stones, affixed to them. His face and skin were painted, with different colours and figures. And much time was spent to give his countenance the aspect he aimed at. The design of his dress and ornament was not gallantry to recommend himself to the female, but rather war; to appear the object of dignity, majesty, and fear. And what was extremely singular, all the finery and decoration of dress, was reserved for the man. The share that fell to the woman, was only that which remained, when her husband was completely decked. When he was about to join the council of his nation, or was going forth to war, he was most of all solicitous to appear in his richest ornaments, and finest decorations. A custom prevailed among the Indians, of rubbing and anointing their bodies with grease, oil, and different kinds

of gums. These were often mixed with different colours, and formed a very durable paint, or kind of varnish. This may properly be estimated as a part of the Indian dress. And it was well adapted to defend the body, against the extreme moisture and cold of the forest and lake, to protect them against the numerous tribes of insects to which they were exposed, and to check the profuse perspiration to which they were subject, at different times and places.

IDLENESS. When engaged in hunting and war, the savage appears active, enterprising, and indefatigable. But when these favorite occupations are ended, an universal inactivity, and indolence, take place. The time of the Indian is spent in eating, sleeping, and sitting still. When he applies to any kind of labour, it is with little activity, and with a great aversion. They will spend whole years in making a pipe, forming a canoe, or building a hut. The labours of agriculture, are wholly assigned to the women : Inactive and slothful, the man cannot be roused up to any kind of labour and fatigue. His time is of no value to him : Every thing but hunting and war, is esteemed below his dignity and attention. And of all employments, the lowest and most base, in his view, is digging, toiling, and labouring in the earth. The most indolent, slothful, and contemptible, in civilized nations, have the same idea of honor and industry ; that labour, especially agriculture, is beneath their dignity and honor.

DIRTINESS. Cleanliness seems to be inseperably connected with industry, and some degree of refinement. Destitute of both, the sav-

ages of North America were sunk into the lowest estate of filth and dirtiness. Nothing can exceed the nastiness that appears in their food, in their cabins, and in their garments. The vessels in which they cook and eat their victuals, are never washed. The dirt and grease in their huts, are never removed or swept away. Their garments are never changed or washed, until they wear to rags, and waste away. No idea of cleanliness seems to have entered into their minds. This seems to be one of the customs, common to all savages: Inactive and lazy, they are all extremely filthy and dirty.

Gaming. Gaming is an amusement, to which indolence and want of employment naturally lead. Above the occupations of labour, and without a taste for useful employments, many in civilized life seek a relief in gaming, for the pains of indolence; and for a method, to move and agitate a languid mind. Moved by the same cause and motive, the savage also falls to gaming, as the most favorite amusement; indolent and lifeless in all the exertions of labour, he becomes deeply engaged, impetuous, and noisy in play. Every thing he possesses, is staked at these diversions; and he looses his peace, his senses, and all that he is worth. But these amusements do not issue in contention and quarrels: Though carried on with a frantic eagerness, they are generally managed, and terminate in good humor and peace.

Songs. Averse to all abstruse meditations, the Indians are much delighted with songs. To an European ear, their songs do not afford much entertainment; nor can such discern har-

mony, melody or any variety in their tunes. However this may be, the savages are always delighted with music. Their songs are of a grave and serious turn. They never relate to the concerns of gallantry and love, but to their most serious employments. They have songs for war, songs for victory and songs for death. Each of them is designed to excite and call forth the sentiments, feelings, and passions, that such occasions require; and they have a great influence on their feelings, and actions. Amidst the severest sufferings of death, this is the resort of the savage; and when burning at the stake, the last consolation, is to sing the song of triumph and death.

Dancing. Dancing has been one of the favorite amusements of all nations. In civilized societies this amusement is designed to promote a refinement of manners; and serves to excite the sensibility, and delicacy, which attaches and refines the sexes. Dancing is also the favorite employment of the savage, in every part of the globe. It calls forth his active powers, which, when unemployed, languish and decay for want of exercise. And in no employment, does he become more animated, vigorous, and eager. Instead of being an amusement, an affair of gallantry, love, or refinement, dancing, among the savages, is a ceremony of great importance and seriousness. With this ceremony war is declared, an embassador is received, and peace is concluded. It is by a dance, that every important transaction in public or private life, is celebrated. Their dances are generally carried on by the men, and it is but seldom that the women are permitted to join in them.

All the steps, figures, and motions of the dance, are expressive ; and significant of the business or transaction, it is designed to denote. If war is to be proclaimed, the dance is expressive of the resentment and rage they bear to their enemies, and of the hostile manner, in which they mean to treat them. If a party are going forth against their enemies, the dance of war is to be performed. In this, the transactions of the whole campaign are to be expressed. The warriors are represented as departing from their country, entering that of the enemy, surprising and conquering their foes, seizing prisoners, scalping the dead, and returning in triumph to the applause of their country. The performers appear to be agitated with all the natural passions and feelings, that take place in any of these scenes. The caution, the secrecy, the fierceness and cruelty of the warriors, is represented in a natural and animated manner. The whole is designed to excite those passions and feelings in the warrior, which it is designed to represent. And so quick, exact, and dreadful, is the representation, that the uninformed spectator is struck with horror, and looks to see the ground covered with mangled limbs, and slaughtered bodies. If peace is made, this is also celebrated by a dance. The ambassadors and the warriors smoke in the same pipe, and join together in the same dance. The dance is adapted to signify that the hatchet is buried, that the blood is all washed away, and that the ghosts of the slain are appeased, and at rest ; and that both nations are now to live, in all the friendship and familiarity of brotherhood.

Thus instead of being barely an amusement and diversion, dancing among the Indians, is a very important and significant ceremony ; designedto represent some important transaction, and to inspire those feelings and passions, which it should naturally produce. Is it not remarkable, that among the savages in the first stage of society, dancing should be adapted to public and national purposes ; that all the steps, figures, and motions of it, should be arts of imitation ; and that among civilized nations, all the steps and motions should be without design, insignificant, and without any meaning at all ?

Beard. The customs and methods of different nations, have been various and different, respecting their beards. Some have carefully preserved them as the tokens of manhood, gravity, and majesty. Others have curled, twisted, and braided them, to give the appearance of elegance and beauty : Others have entirely cut them off, as an useless encumbrance ; and to acquire greater softness, mildness, and amiableness of appearance. These different customs and fashions, do not appear to be derived from any permanent cause, or instinct founded in nature ; but to be matters of fancy, superstition, convenience, or vanity. In this respect the Indians had a custom different from those of other nations. It is their universal and constant practice, to pluck them out by the roots ; and to destroy, as far as possible, the appearance of any beard at all. Every man has an instrument made for this purpose : It consists of a wire, twisted round a stick, in such a manner as to draw the hair out of the flesh, and extract the

root. The Indian carries such an instrument with him : And it makes a regular and constant part, of what he esteems his dress, to extract and destroy his beard. So fond are they of this custom, that whenever the Indian can obtain a looking-glass, his first business is to examine his face, and with this kind of tweezer, pluck out all the hairs he can discover. They generally recommend this custom to their captives, as what would increase their beauty, and destroy their hairy appearance, which the savage greatly dislikes.

Some philosophers have supposed, that the beardless countenance of the Indian, is derived not from custom, but from nature : That the Indian is without any beard, or hair on any part of his body, except the eyebrows and head : That this arises from a defect in the powers and vigour of nature ; and is an evidence of weakness, impotency, and want of manhood.* The fact and the conclusion, are both mistakes. Nature is the same in the Indian, as it is in the European : And on whatever part of the body it has assigned hair to the one, it has given it to the other. I am assured of this from those who have slain, stripped, and buried their warriors : I have the same information from those, who have been their captives ; and who have seen all the members of an Indian family, dressed and undressed, and in all situations. The same is asserted by those, who have lived among the civilized tribes, and been called to perform offices of humanity, to the Indians of each sex.

* Buffon, Kaims, Robertson, &c.

The beardless countenance of the Indian then, is not to be ranked among the curious and extraordinary phenomena of nature, but is to be placed among the customs peculiar to the Indian tribes.

Drunkenness. Drunkenness is one of those vices, which prevail among a rude and uncultivated people. The savages of North America, are universally addicted to it. Before they were acquainted with the Europeans, they had discovered a composition, or liquor, of an inebriating nature, made out of maize or Indian corn. But the difficulty of procuring a large quantity of this liquor, prevented any general intemperance, or excess.

No sooner had they tasted of the spirituous liquors brought by the Europeans, than they contracted *a new appetite*, which they were wholly unable to govern. The Europeans found it the most lucrative branch of the Indian trade, to gratify this inclination. With an avidity of desire altogether uncontroulable, the Indians fell into the snare. The first object of inquiry with them, was, whether the trader had brought any brandy or rum; and no considerations could restrain them in the use of it. The old and the young, the sachem, the warrior, and the women, whenever they can obtain strong liquors, indulge themselves without moderation, and without decency, until universal drunkenness takes place. All the tribes whether placed in a temperate, or in a severe climate, appear to be under the dominion, and unable to govern this appetite. An effect so universal and similar, must have as general & universal a cause. The cause

will be found to have a deep and a strong foundation, in their manner, custom, and habit of living. Their constant method of living, was on raw or boiled meat, and fresh water. This did not satisfy the desires of nature ; and naturally produced an appetite for every thing, which was astringent, stimulating, and inflammitory. When they met with ardent spirit, they found that, which is the most highly gratifying to such an appetite. The hardships and sufferings to which the Indian was exposed, their want of comfortable refreshments and support, and the extremes of heat, cold, and moisture, to which they were subject, were constantly adding new force, to an appetite already excessive. Few of the white people, who have been reduced to such a situation for a few months, have been able to preserve their temperance. The Indian proved wholly inadequate to the trial. Unaccustomed to lay any restraint on his appetites and passions, and unable to bear but a small quantity of the liquor, to which he had been unused, he is overcome upon the first trial. His appetite, the more inflamed by irregular enjoyment, becomes more keen and raging, until extreme excess puts it out of his power to indulge himself any longer. Nothing but a total change of the whole method of his living, will enable him to preserve that temperance and regularity, which to a person surrounded with all the comforts of life, is an easy and a common attainment.

Cruelty. There are no passions in the human mind, which operate with so much force and fierceness, as those of anger and revenge. The

customs and maxims of polished societies, with all the aid of their laws and religion, have not as yet been able to give a due regulation or restraint to these passions. In many cases, an offended individual cannot be made to believe, but what it is right and best for him, to be the judge and the avenger of his own injuries ; and that it is the mark of meanness, to leave it to the laws of society, to make a proper retaliation for the wrongs he has received. Higher attainments must yet be made in the state of society, before an adequate restraint and regulation will be found for these passions. In the breast of a savage, they rage without any controul : Instead of being taught any restraint, the young savage is taught in early life, to gratify and indulge them. The whole force of education, example, custom, habit and manner of living, operate with a decisive influence, to give them new force and vigour. By the government of the tribe, the revenge of injuries is left in the hands of every individual ; and to be patient and moderate, is the highest mark of meanness and want of spirit. To give further force to the spirit of vengeance, all the maxims and customs of war, have placed the point of honour, in rendering the spirit of revenge, implacable, unabating, and such as never can be satisfied, subdued or lost. Aided by all these motives and considerations, anger and revenge, become fierce, brutal, horrid, bloody, and implacable passions, in the breast of the savage : More like the destructive rage of a beast of prey, than like a passion in the heart of a human being. The effect, is a barbarous and unre-

lenting cruelty: Far from pitying, sparing, or forgiving, the savage aims at the ruin, destruction, and utter extermination of his enemies. Hence the method of carrying on his war, was to destroy men, women, and children. To plunder and burn their towns, and villages: To torture and torment their prisoners: And to sweep off whole tribes, with an universal and undistinguished carnage. This seems to have been the wish and aim of every tribe, when they engaged in war. A barbarous, unrelenting cruelty, distinguished and marked all their steps.

The cruelty of the Indian seems to have arisen from the passions of anger and revenge. It is not to be denied but that there are other passions, which have carried civilized nations, to the same dreadful extremes in cruelty. *Avarice* led the Spaniards to perpetrate more enormous crimes and cruelty upon the Indians, than the Indians were ever capable of returning. The scene of promiscuous calamity, destruction, murder, and butchery, which the Spaniards carried through all parts of South America, in the number, design, degree, duration, variety, and enormity of its cruelties, far exceeded any thing that was ever perpetrated by the Indians. If we are to believe the declarations of a celebrated modern Statesman,* the avarice of a company of merchants, has murdered millions and millions of mankind, by starving them to death in *Bengal.* The spirit of *superstition* and *bigotry,* is equally cruel and unrelenting. The

* Mr. Burke.

murders of the inquisition subsisted for centuries : they were sanctioned by law, and are not yet done away. Imprisonment, confiscation, and death in its most awful forms, were the punishments which bigots, whenever they had power, never failed to inflict with great pleasure, upon those who were wise and virtuous enough to oppose them. The massacre on St. Bartholomew's day, in 1572, was one of the most barbarous and horrid of all human transactions. In the midst of the most polite city in Europe, the king, princes, nobility, and priests, turned monsters, assassins, and butchers ; and murdered thirty thousand of their fellow men, on account of their religion. Their rage was attended with circumstances of inhuman cruelty and barbarity, far exceeding the fierce and bloody passions of the savages of America. Our own countrymen ought not to forget, that *revenge* has also transported them into a conduct, equally inhuman and barbarous as that of the Indians. At the conclusion of the Indian war, in 1676, the government tried several of their captives, by the English laws : Some were condemned, and executed upon the gallows ; and others were sent to consume their days, in the slavery of the West India Islands : A punishment, to them more severe than death.

In the cruelty and barbarity of the Indian, man appears in a situation but little removed from the brutal ferocity of the beast of prey. But when avarice, bigotry, and revenge, produce the same infernal spirit among civilized nations, cruelty appears with a more diabolical aspect ; not like the rage of wild beasts, but

like the fury and vengeance of a combination of apostate spirits. The progress of knowledge, humanity, and refinement, will afford the only effectual remedy for this evil.

Such were the regulations, customs, and manners of the Indians, the original men of America. They have been viewed by philosophers, in the most opposite and contrary lights. Some have supposed that the Indians were in the infancy of existence, that the whole continent of America was but lately raised out of the sea, and that her inhabitants were in a state of degradation, unworthy to be compared with the men of the more ancient and improved hemisphere.* On the contrary, others have contended that in the rudest and most simple state, man attains an independence, a dignity, and a nobleness of mind, which is never found, but is always lost, amidst the refinements of polished societies : that the highest dignity and nobleness of man, is derived solely from nature, and is always debased and corrupted by polish, refinement, and the arts.† To view this subject in its proper light, it will be necessary to compare the savage with the civilized state, and to mark the various *Advantages* and *Disadvantages* of it.

The Savage State favourable to the Health, Activity, and Vigour of the Body. Among the *advantages* that were connected with the savage state, it may justly be esteemed one, and a matter of much importance, that it was favourable to the vigour, activity,

* Buffon,
† Rousseau.

and health of the body. It is by exertion and exercise, that the body acquires its most improved state of activity, firmness, vigour, and health. Accustomed to range the forests in quest of game, the Indian acquired an habit and activity in travelling, that exceeded that of any other people. In the expedition, swiftness and perseverance of his course, he much exceeds the European. No people bear hardship, suffering, and fatigue so well: The extremities of heat and cold, of hunger and thirst, of bad weather, and of bad accommodations, are perfectly familiar to the Indian: And he bears them with a much less effect upon his constitution, than the men who have been used to better accommodations. Unaccustomed to the steady and regular employments of agriculture, his body does not acquire the strength that the Europeans have. And when the exertion, is an exertion of strength, and steady labour, the white man is found to be the strongest. Those only of the Indians, who have been educated and trained up to steady and hard work, are equal to the white men in bodily strength. In running the race, and in bearing hardship, the Indian exceeds; but in strength of body, and bearing hard and stead labour, he is generally unequal to the European.

In respect to health, the savage state seems fully equal to the civilized. Used to all the variations of the weather and climate, he suffered but little from such changes. The diseases to which the Indians were subject, were chiefly those which arose from exercise, hardships, and fatigues. Fevers, the asthma, and paralytic

disorders, made the capital articles in the history of the Indian diseases. But that numerous and fearful train of maladies, which arise from luxury, sloth, intemperance, and want of exercise, were unnamed, and unknown among the Indian tribes. In their villages there seemed to be a greater number of decayed and aged persons, than are generally to be found among an equal number of white people. But as they had not the art of numbers and computation, no exact accounts could be procured of their age. This article rests therefore rather upon appearance, and indication derived from decrepit and shrivelled bodies, than from any proper and authentic accounts of the years and longevity to which they attain. All appearances however seem to indicate, that activity, vigour, health, and age, were to be found to great advantage in the savage state.

Favourable to Firmness and Fortitude of Mind. The situation and employment that promoted the vigour and health of the body, tended to produce independence, firmness, and fortitude in the mind. Inured to suffering, hardship, and danger, the mind of the savage was formed to an habitual firmness and courage. His mind became composed and collected in critical and dangerous situations: And he suffered but little from apprehensions of fear. The spirit of freedom and independence was cultivated and confirmed by every circumstance attending his education, employment, and reputation. Neither corrected nor checked in his early years, retarded or stopped in any pursuit, he knew of no controul or restraint.---

Master of his own actions, and never wishing to moderate his passions, the spirit of freedom and independence took the entire possession of his soul. Moved by and perpetually conscious of this independent spirit, he acted in circumstances of distress and danger, with amazing force and magnanimity of mind. But that which the savage esteemed his greatest glory and highest dignity, was his fortitude and bravery. To bear hardship, to endure suffering, to be unmoved in the midst of torment, and to rise superior to any thing that could be laid upon him; this, was the highest honour, and the noblest attainment of the warrior. And in this, it is not to be denied, that the human mind attained in the savage state, a fortitude and a magnanimity that it does not attain, amidst the refinements, customs, and maxims of polished nations.

Amazed at the firmness and fortitude, which the savage displays in the most dreadful of all situations, several philosophers have aimed to discover some apathy, some natural defect, or want of sensibility in his frame, which qualified him to bear pain with less feeling, and with more fortitude, than other men. There is no such defect in his constitution. His magnanimity arises from a sense and principle of honour. This is the first principle he is taught; the sole object of his education, profession, and pursuit. Amidst the rudeness and hardihood of the savage state, this principle acts with more force and vigour upon the human mind, than it ever acquires amidst the refinements and softness of a more polished state of society.

Refinement, and the arts, soften and relax the mind ; philosophy debilitates the body, while it aims to correct all rudeness and excess in the mind, and to give it a just habit and tone of thinking and acting : But in the rudeness of the savage state, every thing concurs to give an unaltered firmness to the body, and to the mind ; the principle of honour has nothing to oppose or relax it : And it will be in the most hardy body and mind, that nature and honour will act with the greatest force and vigour. The principles of religion only, have ever produced a similar phenomenon. The heroic spirit of the martyr, undaunted and triumphant in the torture, and in the flame, has alone exceeded or equalled the fortitude and magnanimity of the man of nature.

Favourable to Political talents, and Virtues. The savage state was also friendly to some of the political talents and virtues. *The love of his country*, derived from nature, cherished by education, ambition, precept, and example, became a very powerful principle in the breast of a savage. His affections were confined to the limits of his own tribe, and his views never extended any further. His glory terminated in the services he could render to it : And the greatest of all attainments was to expand the national fame, reputation, and conquests. To this he became attached by birth, education, and interest ; by ambition, honour, and a thirst for glory. Every passion that glowed in the breast of the savage, served to increase and add strength to the love of his country. No motives of ambition, gain, re-

venge, or policy, ever lead him to betray its interests or councils, to desert to the enemy, or to prove a traitor to the country and tribe, that gave him birth. This principle connected together the members of the same tribe : It seems to have taken the deepest root, to have acted with the greatest force, and to have been the least corrupted, in the savage state.

When the interests of their country were to be considered, much *prudence* and *wisdom* were displayed in their councils. The chiefs and elders consulted with great deliberation, seriousness, and calmness ; and without any appearance of provocation, resentment, or impatience at contradiction and opposition. Every proposal was considered ; the probable effects and consequences, advantages and disadvantages, were examined and weighed. No heat, anger, ill nature, or reflections upon one another, but perfect calmness prevailed : And that conclusion was embraced, which appeared to be most beneficial to the tribe. Those of the Europeans who have attended these councils of the savages, have compared them to the accounts, historians have given us, of the proceedings of the senates in the ancient republics,* They bore the appearance of solemnity, gravity, and deliberation. In these councils, *integrity* and *public virtue* was always preserved. The objects they had to determine, were not of a trivial or insignificant nature : they were those, which involve all that is the most dear, valuable, and important to man, in any stage of society : The

* Charlevoix iii. 26. Smith's Hist. Newyork, p. 53. Phil. Edit.

preservation and protection of their property ; the safety and the lives of their wives, children, and fathers ; the existence, the independence, and the freedom of their country. The councils of civilized nations may be employed upon objects of a much greater extent ; but they never can contemplate objects of more importance, of greater value, or of a higher nature. In attending to them the mind of the savage became composed, sedate, grave, and serious. He had no private interest to corrupt him ; no broken fortune to be repaired ; nothing to be expected from the misfortunes of his country ; from lucrative jobs, posts of honour and profit ; from the management of the public wealth ; or from the weakness, prejudice, and favourite passions of a prince. No emoluments or advantages could accrue to him, but those of the public good. In such a situation, corruption would not enter into the councils of the savages. There was nothing to be gained by intrigue, dissimulation, or knavery. All the advantages that could arise to individuals, must arise from the general good of the tribe. And where there was nothing to be gained by corruption, there was nothing left for their counsellors, but to display their greatest wisdom, integrity, and public virtue.

The nature of their government and councils was also favourable to *eloquence*, and the art of *public speaking*. This seems to have been the only art, in which the Indian rose to any eminence. Unable to remember an irregular unconnected discourse, the Indian was extremely fond of regularity and method. When he spoke,

his speech was short and laconic ; and the meaning was conveyed in bold and strong metaphors. When they return an answer, they repeat the whole that has been said to them, and reduce it into a strict and regular order. Their words are but few ; the language strong, and figurative ; the figures expressive, vigorous, and bold ; their manner, grave and animating ; the tone, determined and decisive ; and the sentiment they mean to convey, so clearly expressed, that they are never misunderstood. An historian who was present at several of their conferences with the English, gives this account of the appearance and manners of their orators, " Their speakers deliver themselves with surprising force, and great propriety of gesture. The fierceness of their countenances, the flowing blanket, elevated tone, naked arm, and erect stature, with a half circle of auditors seated on the ground, and in the open air, cannot but impress upon the mind, a lively idea of the ancient orators of Greece and Rome."* Some of their speeches in manliness of sentiment, in the force of expression, and in the elegance of the arrangement, have been fully equal to the productions of the Grecian, Roman, or British eloquence. And in no case does language acquire such force and vigour, as when it is the dictate of the passions and feelings of nature, in her rude and uncultivated state.

It was by the combination of these virtues and abilities, that the savage rose to public honours, employment, and distinction. The brav-

* Smith's Hist. of Newyork, p. 52.

est and the wisest became the leader, and the sachem. No other arts could secure the public esteem and favour, but superior abilities and exploits. The ancients generally numbered good fortune, among the most necessary qualifications of their heroes. The Indians adopted this idea in its full force, and extent. Without distinguished bravery and success, the private man was never promoted at all : If he proved an unfortunate and unsuccessful leader, he soon lost all his influence and reputation.

In these maxims and customs of the savage state, there were constant and powerful motives, to the exertion of all their political talents and virtues : And there was much less intrigue and corruption in those public proceedings, which related to their own tribe, than there generally is in the transactions of civilized societies.

Favourable to the Exercise of some Virtues. Several of the vices that prevail among polished nations, were seldom to be found among the Indians ; and there were some virtues, to the exercise of which, the savage state was not unfriendly. The hospitality which the ancients celebrated so much, was of great importance and use in the early stages of society. When the stranger and traveller could find no accommodation or protection, but in the kindness of those on whom he called for relief, hospitality became a virtue of the highest use and excellency : the business and convenience of life, could not have been easily carried on without it. As society became improved, the stranger found in the protection of laws, and in the use of money, that relief, which he before de-

rived from the hospitality of the age. In polished nations, the necessity and the existence of this virtue, have in a great measure ceased. Among the savages it prevailed to an high degree, and acted with its full force. The Europeans every where found the most friendly and cordial reception, when they first came among the savages; and from their hospitality, they derived all the assistance the savages could afford them. It was not until disputes and differences had taken place, that the Indians became unfriendly. Even now, an unarmed defenceless stranger, that repairs to them for relief and protection, is sure to find safety and assistance in their hospitality. The friendship of the Indian, is always a very strong and vigorous affection. His passions unsubdued, undisciplined, and ungoverned, always act with great force and vigour: Whatever be the object of them, the passion itself is always impetuous and strong. No bounds are set to his resentment and revenge, when injured; and no length of time, will obliterate the memory of a favour. The same impetuosity and perseverance, with which he pursues his enemy, is employed to assist and preserve his friend. In this respect, the Indian attachments have fully equalled any thing that is to be found, in the history of man. Several of their best concerted expeditions have failed, through the anxiety of an individual to preserve a friend from the common vengeance and destruction.

Trained up to the most refined cunning and dissimulation in war, the Indian carries nothing of this into the affairs of commerce;

but is fair, open, and honest in his trade. He was accustomed to no falsehood or deception, in the management of his barter. And he was astonished at the deceit, knavery, and fraud of the European traders. He had no bolts or locks to guard against stealing, nor did he ever conceive his property was in any danger of being stolen, by any of his tribe. All that train of infamous and unmanly vices, which arise from avarice, were almost unknown to the savage state. Lying and falsehood were viewed with horror, and detestation. When they found these vices common among some of the Europeans, the Indians viewed them as a corrupt and odious race ; in whose truth, justice, and declarations, no faith could be placed. They had no name for adultery, or rape. Quarrelling, contention, and discord, with their numerous ill effects, were but little known among the members of the same tribe.

THEIR morality, confined to a few objects, admitted of fewer vices than the civilized state. Where no wants are known but those of nature, and the way to supply those wants is the same, and open to all ; the individuals of the same society, will live in a friendly and cordial manner together ; without many grounds of strife, and without much temptation to injure each other. In the language of the Indians, this is denominated a state of brotherhood : In this state, the moral sense will join its influence with the social affections, to prevent injuries, evils, and vices ; and to restrain the members of the tribe, from violating the rules of morality. As such a state does not admit of many of the virtues of

civilized nations, it is also in a great measure free, from many of their most dangerous vices.

In such respects, the savage state seems to have had advantages peculiar to itself; and to have produced effects, which are not to be expected among civilized nations. But before we decide on its operation and tendency, it will be necessary to examine the *disadvantages*, to which it is subject; with their influence, and effect on society.

The Savage state unfavorable to all Intellectual Improvements. As one disadvantage of the savage state, it has constantly proved unfavourable to all intellectual improvements and exertions. Occupied solely with hunting and war, the savage had no idea or wish for any intellectual attainment, which was not immediately connected with his favourite professions. Neither his reason, nor his invention, appear to have been much exercised upon any object, not suggested by his necessities. Taking the game, and subduing his enemy, did not depend on the knowledge of letters. The transactions of his ancestors, were not of much importance to him: He had no code of laws, no evidences of property, or any public transactions to be recorded. With these arts, of so much importance to civilized nations, but of little consequence to the Indians, they were wholly unacquainted; and had not made any advance towards the discovery of letters. The only thing which they appeared anxious to record, was the exploits of their warriors. When a party of these had met with uncommon success, it was often the case that they made some

very rough figures or inscriptions upon the trees, to represent the direction of their march, the number of enemies which they had slain, and taken captive.* These kind of inscriptions were sometimes made upon the rocks; but they were not confined to the affairs of war. At West river in this state, near its entrance into Connecticut river, several of these inscriptions yet remain. They are irregularly placed, and rudely scratched upon a rock, and but little sunk below its surface. Four of them seem designed to represent the wild duck, and the fifth was probably designed for a fox or wolf. At Bellow's falls in Rockingham there are several figures of a superior work. They amount to ten or twelve in number, and are wrought into the surface of the rock. These inscriptions represent a number of heads; some of men, some of women, some of children, and some of other animals. The outlines of these figures are aukward and ill executed, but they are sunk into the rock at least one third of an inch in depth. How long they have been there, or what transactions they were intended to represent, no tradition gives us any account; but their rudeness and awkwardness denote that the formers of them were at a great remove from the knowledge of any alphabet. The art of numbering and computation, is an elementary and essential art in every nation where business is transacted, or any considerable intercourse and commerce is carried on. But the savage had nothing to number, that was of much im-

* Sir W. Johnson's account; Phil. Trans. Vol. LXIII. page 143.

portance to him. He had no treasures to count; no property, the value of which, was to be computed; nor any variety of objects, the number and value of which, must be expressed by figures. Arithmetic would therefore have been an useless art to the Indian; and he had not made any attempt to attain it. They could count as far as ten or twenty; all beyond this, was compared to the number of the trees, or the hair on their heads. The only objects, on which the Indian had employed his reason, were those of external sense; such as are material or corporal, the idea of which is received by the senses. They had no name for any of the sciences, or for abstract and universal ideas. Time, space, duration, substance, and all those terms, which are used to represent abstract and universal ideas, appear to have been unknown; and probably never were the objects of their inquiry, contemplation, or thought.

The ideas of religion, were extremely weak and obscure in the savage. Our *Maker* has not left us to a course of metaphysical reasoning upon the connexion between cause and effect, to come to the knowledge of his existence. Long before men become capable of such exercises of the reasoning powers, they believe in the existence of a *Deity*. A sense of his being, seems to be inscribed upon the human mind. And probably no tribe has ever been found, that had not the idea of some superior powerful being. Whether this was the object of fear, or of love, or however it was represented, the idea of a superior being seems to have been common and general among all nations. It takes place

in the mind, before we are capable of reasoning about cause and effect: And it seems to be derived from a revelation, which the *Deity* hath made of himself to man. In the constitution of the human mind, in its feelings, passions and motions, a sense of the Deity seems to be interwoven, instamped, and inscribed. And this revelation becomes more clear, plain, aud intelligible, according to the manner and degree in which it is improved. Among the Indians, it appeared in its weakest and most obscure state. They denominated the Deity, *the Great Spirit, the Great Man above;* and seemed to have some general, but very obscure ideas of his government, providenee, universal power, and dominion.

The immortality of the soul, was every where admitted among the Indian tribes. The sentiment itself results from our fears, hopes, and feelings. Man is scarcely ever degraded and sunk so low, but that he hopes and believes that death will not prove the extinction of his being. This sentiment prevailed in every part of America. The Indians so firmly believed it, that it was their general custom to bury with the dead, their bows, their arrows, their spears, and some venison, that they might not be wholly unprepared to begin their course with advantage, in another state. There might be a few exceptions, but the general sentiment was nearly the same in every part of the continent.

But both these sentiments, the existence of a God, and the immortality of the soul, were nothing more in the savage, than the dictate and voice of nature. They were not the object of

his inquiry, discourse, reasoning, or contemplation. The Indians had made no improvements, no cultivation of the gifts of nature and providence ; and they had very little influence on any part of his conduct. They had not produced any domestic, or public devotion ; any form, rite, or mode of worship ; or any system of manners and customs, favourable to national virtue and religion. Without a priest, without a temple, sacrifice, or altar, the Indian was sunk under the thickest gloom of ignorance, superstition, and stupidity.

His reason, never employed on any intellectual attainment or exertion, he remained in a state of nature ; wholly unacquainted with every thing derived from the exercise, improvement, and cultivation of the powers of the mind. Neither his reason, or his desires, ever moved or tended towards any such improvements : And so long as hunting should have continued to be the mode of his subsistence, so long it is probable, he would have remained at a distance from every intellectual attainment.

Admits of but few Virtues. It was another disadvantage of the savage state, that it did not admit of but few virtues. The moral sense, or conscience, makes part of our natural constitution ; and is as essential to man, as his appetites and passions, as his countenance and form. When this is not corrupted or perverted, its dictates are clear and right, and do not tend to mislead us : And its dictates are never more clear and certain, than when they are the genuine and simple voice of nature. There were fewer temptations and there were fewer vices in

the savage state, to corrupt and pervert the moral sense, than there are in a polished state of society : But there were also fewer motives, occasions, and opportunities for virtue. Reverence and respect to the Deity, had little place or effect on the uncultivated mind of the savage. There was nothing in his situation to produce those offices of kindness, and tenderness, which soften the heart, and sweeten the intercourse of life, in the civilized state. The sullen pride of independence, was the strongest passion in the heart of the Indian ; and it left but little room for tender and generous affections to others. Depending solely upon himself, the heart of the savage contracts an insensibility, an hardness, a roughness, very unfavorable to social connexions. Expecting no offices of kindness from others, he was very little employed in relieving the distresses, supplying the wants, or gratifying the desires of others. In a heart thus contracted, but few virtues will reside. The natural affections will remain, and may become strong and vigorous : But the divine, social, and human virtues, find an unfriendly soil ; become few in their number, and weak in their operation.

No Attainment in the Arts. Those arts, which are the most necessary and useful to men in the civil state, were almost wholly unknown among the savages. To provide a covering to defend the body against heat, cold, and moisture, is one of the first arts that man must have attended to. The Indian had gone no further in this primary and essential art, than to apply the skins and furs of animals to this pur-

pose. The art of spinning, knitting, and weaving, were wholly unknown to the northern Indians. They had no other materials to cover and clothe their bodies, than what were derived from hunting. Architecture of some kind and form, must unavoidably engage the attention of men, in every climate and country. The attainments of the Indians in this art, were the lowest that can be conceived. Their buildings were nothing more than a few temporary and wretched huts, put together without order, strength, or convenience. Some crotched stakes were thrust into the ground : these were connected by poles, laid from the one to the other ; and the whole was covered with the bark, limbs, and leaves of the trees. An aperture was left at the top, for the conveyance of smoke ; and the fire was kindled in the middle. This was called a cabin or wigwam, and was without windows, doors, or any division of apartments. This was the highest elegance and convenience, the house of the Indian had attained.

The progress of the arts, depends very much on the instruments and tools, with which the artificers are furnished. Most of these among civilized nations are derived from the application, and use of the metals ; particularly that of iron. From this metal is formed almost every instrument, that is employed in peace or in war. Civilized nations have availed themselves of the discovery and use of this metal, in every kind of art that they pursue. The Indian was in no capacity to arrive to such an improvement. Copper, silver, and gold, have been found in their perfect state, in the rocks, mountains, and

rivers ; and were the metals, which were first known and used. But nature never completes the formation of iron. It must pass through two or three tedious operations by fire, before it appears in its perfect and useful form. With the former metals, the Indians in some parts of America, were well acquainted : But of the nature and use of iron, all of them were wholly ignorant. Destitute of this capital advantage, all their tools and instruments to an European, would have been wholly useless. Their axe was made of a sharpened stone. Their knife was formed out of a shell, or bone. Every other instrument was equally impotent, and ill contrived. The arms they had contrived for defence or attack, were equally feeble and awkward : A club made of hard wood, a stake hardened in the fire, a lance armed with a flint or a bone, a bow and an arrow, constituted the whole artillery of an Indian war. Of domestic utensils and household furniture, they had nothing that deserved the name. A bed, a chair, a table, a pot, a kettle, or an oven, were wholly unknown. Their bread was baked on the coals. Their meat was broiled in the same manner. Their greatest art in cookery, was their method of boiling their food. A piece of wood, or a stone, with extreme labour, was formed into a hollow, and filled with water ; and this water was made to boil, by throwing into it stones heated red hot.

The greatest performance of the Indian genius, was the construction of his canoe. With infinite labour, they sometimes hollowed out a tree, and gave it a form adapted to the purpose

of navigation. In a canoe thus formed, four or five Indians would pass a river, a large lake, or a dangerous rapid, with much safety, and dexterity. Another kind of canoe, was formed out of the bark of the elm, or birch. This was the work of but a few days, and was extremely light and convenient. It was of sufficient dimensions, to carry four or five Indians ; and so light, that one of them could easily carry it on his back. The dexterity of his management, the swiftness of his voyage, and the safety with which the Indians pass the falls, rapids, and waves in this kind of boat, has appeared surprising to those persons, who were best acquainted with the arts of navigation. And it seems to have been the highest attainment, to which the genius or invention of the Indian, had ever arisen.

In the application and use of particular vegetable, animal, and mineral substances, the Indians seem to have had some information, which ought to have been more attended to, and better ascertained. They certainly knew of some substances, which gave the most vivid and permanent colours ; and of others which contained the most subtle, active, and powerful poisons. In several cases of poisons, wounds, and some other disorders, the Indians had the knowledge of very valuable medicines : And they derived support, refreshment, and medicine, from several plants and vegetables, in which the English had not discovered any such virtues or qualities. The knowledge of such facts, was the result of such observations, as experience naturally produced. But as the Indian never

attempted to improve any information which he had, and knew of no method to preserve it but tradition, he made small advances in this kind of knowledge ; and it was rather a matter of secrecy, than of investigation. Nor was there any thing in his situation, or employment, adapted to call forth the latent powers of his mind, and to produce the spirit of inquiry and improvement.

VERY UNFAVOURABLE TO POPULATION. A disadvantage still more unfavourable attended the savage state, it tended much to retard population. From the earliest histories of Virginia, it has been computed that the number of Indians in that part of the continent, did not amount to more than one for every square mile.* I do not find any account, which will lead us to estimate the number of Indians in New England, at a higher ratio than this. In those parts of the United States where the farms are well managed, a farm of one hundred acres will well support a family of ten persons. This amounts to sixty four persons, on one square mile. The Indian population then, compared to what has already taken place in those parts of the United States, which are well settled and cultivated, was in no higher a proportion than one to sixty four. A difference so unfavourable to the production of life, denotes some essential defect in the savage state.

POPULATION depends upon a variety of circumstances, all of which are never found to concur, in favour of any people. In the state

* Jefferson's Notes on Virginia, p. 168.

and situation of the Indians, there were fewer circumstances favourable to population, than in any other state of society. In the constitution, form, and vigour of his body, nature was bountiful to the Indian. In the dimensions and size of his body, in the proportion and perfection of all his limbs, members, and organs, he rather exceeded than fell short of the European. All that have been acquainted with the savages, have been struck with this circumstance. In no race of men, has the human body appeared to be better formed, more nicely adjusted, or to be more perfectly proportioned in all its members and parts. No deficiency therefore arose from any impotency, or want of vigour, in any of the powers of nature.

But whatever may be the original powers of nature, they are weakened and impaired without proper food, and nourishment: And it is only, where suitable and nutritive food is to be obtained in regular and sufficient quantities, that animals will become the most prolific. In this respect, the situation and state of the savage, was greatly unfavourable to increase and population. Destitute of any certain or regular food and nourishment, the Indians suffered severely this way. At one period, all was gluttony and excess; at another, famine and hunger became extreme and distressing. The heaviest part of this distress fell upon the women, who were the least able to bear it: And at no time did they enjoy that regular and steady supply of food, which nature required. In the male, this tended to impair the animal passion: In the female, it tended not only to weaken it, but to render it

greatly dangerous to indulge it. Its effects were still worse upon the pregnant; and often destroyed the increase and fruit of nature, before the birth.

The manner in which the Indians procured their food, was equally unfavourable to population, as the uncertainty and irregularity of it. Destitute of a fixed settlement and abode, the savage spent the hunting season in wandering through the forests in quest of game, and generally carried his family with him. Their women must climb the mountains, wade through the rivers, force their way in the thickets of the forest, sleep upon the wet ground in the open air, and carry their children with them; and amidst all these fatigues and distresses, were often without food for several days, and always without comfortable refreshment. Instead of being in any degree prolific, the white women would have all perished in such a situation. The wonder is, not why population should have been so small, but how it should subsist at all, in such a situation. If the constitution of the savage had not been uncommonly strong and vigorous, not only the animal passion, but all the powers of nature would have ceased and become extinct, by such continued scenes of fatigue and distress.

The constancy and perpetuity of their wars, had also a fatal influence on population. The irruption of an enemy desolated their cultivated lands, disturbed them in their hunting exertions, and destroyed all the little stock of provisions they had saved. The women and children had no place of refuge, but to conceal

themselves in the woods, and mountains ; where many of them must perish for want of food, and all of them must be in a suffering and distressed condition. In the whole catalogue of human woes, it is not possible to conceive of any state more distressing, than that of a pregnant woman, in a situation so horrid and awful. Many of them lived, and brought forth the fruit of nature, amidst this complication of miseries. But the preservation of the mother and child approached nearer to the nature of a miracle, than to what is esteemed the effect of the established and regular laws of nature, in the civilized state. While their wars had this fatal tendency to prevent the increase, they operated with a force equally fatal, to destroy and sweep off those that were the most vigorous and active. Revenge, destruction, the utter extermination of an enemy, was the object aimed at in an Indian war : And while it was carried on, it operated and raged with a fatal and a certain tendency, to effect its design, aim, and end.

OTHER causes might be found, in the customs, manners, and maxims of the savages, which were also unfavourable to increase and multiplication ; but it is not necessary to enumerate every particular, that would apply to this subject. The circumstances which have been mentioned, are sufficient to account for all that has been uncommon, in the defect of Indian population. That these circumstances, do in fact contain the causes, which rendered the population so small among the savages, is confirmed from this additional evidence. Wherever the Indians have been placed in a situation

favourable to increase, they have become equally prolific as the descendants of Europe. Several of the traders among the Indian tribes, have married with their women: When the Indian women have been thus provided with comfortable food, raiment, and places of abode, and relieved from the fatigues and distresses of the savage state, they have raised up as large and numerous families, as are found in the houses of the white people. And among themselves, when a tribe was situated on the bank of a river abounding with fish, or in a spot where the game was plenty, and they remained undisturbed by their enemies; their numbers soon increased, their women became more valued and esteemed, and population assumed a greater force and vigour.

In some parts of America, the Indians had advanced beyond the savage state, and acquired some of the arts and conveniences of the civil state. In such places, the same increase of numbers took place among them, that is seen among other nations. The intercourse between the sexes approached nearer to delicacy and refinement. Greater attention was paid to the women. The men became sensible, how much their happiness might be promoted, by the attachment and tenderness of the female. In the empires of Peru and Mexico, the Indians had made considerable advances to such a state: And their population had become vigorous and rapid. Their numbers resembled the appearance of things in Europe; and their cities abounded with inhabitants. Sixty thousand families, were said by Cortez, to be contained

in the city of Mexico, when he led his band of ruffians against it. From these effects we may determine with certainty, that the defect in the Indian population, was not derived from any weakness, impotency, degradation, or defect of nature; but arose from a situation, in which every circumstance was unfriendly to increase, and multiplication.

From the beardless countenance, and inattention of the Indian to the female, some philosophers of great eminence and abilities, have formed the most extravagant systems and theories. One has asserted that the Indian of America has an inferior constitution to the European; that he is weak, and deficient in the organs of generation; without ardour, and impotent with the female; and destitute of natural affections to his wife and children.* Another is positive that he is not descended from the common parents of the whites, but is a distinct, separate, and inferior order of men to them; of a different original, and species.† And it seems to be generally asserted and believed, by the historians who have quoted these accounts, that the man of America was of less force, energy, and vigour, than the man of Europe; and laboured under some physical defect, or degradation.

The clearest proof, and the most unexceptionable evidence, ought to have been produced, before a philosopher admitted as facts, things so repugnant to the general principles and laws of nature. Had this been attempted, it would

* M. de Buffon, xviii. 146.
† Kaims' Sketches Hist. of Man, Vol. I. Sketch 1. Vol. III. Sketch 12.

have corrected the error ; for the facts are all in opposition, to what has been so often asserted, and quoted. No such animal was ever seen in America, as the Indian M. de Buffon described in Paris. If the facts had been true, the conclusions which have been drawn from them, would have been wholly uncertain. The want of a beard would have been no proof, that the Indians were incapable of population : And the want of that excessive licentious ardour, with which the negro and the libertine glows, is in no degree unfriendly to population. Every passion carried to excess, tends to weaken and enervate the whole animal frame. In obedience to that temperance, purity, and regularity, which nature enjoins and requires, are we to look for the effects, which nature designs. But the ardour produced by luxury, intemperance, and excess, weakens its own powers, defeats its end, and destroys its purpose : Instead of proving favourable to population, it tends to weakness, impotency, and the loss of manhood. Is it not surprising, that philosophers who had seen the debilitating and degrading effects, which luxury, intemperance, and excess, are constantly producing in the populous cities of Europe ; should view the unnatural ardour they create, in any other, than an unfavourable light ? Or suspect the Indian was inferior by nature to the European, because he did not appear to be governed by that unnatural ardour, which never fails to debilitate all the powers of nature : And which often ends, in the most emaciated and degraded state, to which man can be reduced ? Happily for himself, the Indian was without this unnatu-

ral ardour. Had it been added to the other unfortunate circumstances attending his situation, it would have gone far to have destroyed the whole race.

Averse to all Improvements. The most fatal circumstance of all, was, the savage state was extremely averse and opposed to all improvements. It is with a benevolent design, that nature reconciles and conciliates the mind of man, to that state in which it is placed. At the same time, it has made us capable of continual advance and progression, to greater improvements and perfection. So attached was the savage to the former, that he had no wish or desire of the latter. Content and satisfied with his own state, he had no wish, hope, or conception, that it could be changed for a better. Accustomed to the most perfect freedom and independence, he beheld with detestation, the inequality of rank, and the subordination established among the Europeans. Free from all care, and without foresight, he was amazed at the anxiety, the care, and perpetual industry of the white people: And could not conceive why they should be thus perpetually adding hard labour, to the other calamities of life. The constant scenes of hurry, care, and business, in which they were employed, were objects averse to all their feelings and wishes: And what they viewed as the most degraded condition, to which man could be reduced, was the business of agriculture, digging and labouring in the earth. The weapons of the Europeans appeared useful to them, and these they were at much pains to acquire. But most of their arts, customs, and

manners, were greatly disagreeable to men, accustomed only to the business of hunting and fighting. Men thus satisfied with their own condition, and averse to that of others, could not be brought, but with great difficulty, to admit the improvements of the civilized life ; or to give up that independence, which they esteemed the highest distinction, and the greatest glory of man.

The appetite for the hunter's state, is one of the most general and powerful, that prevails in any period of society. Men never quit this state, until it becomes inadequate to their subsistence and support. It is in hunting and in fishing, not in agriculture and the arts, that the indolent and wealthy in the most polished nations, find their favourite amusement and exercise. The children of the white people, when carried among the savages in early life, have often contracted such an attachment to that state, that they could not be persuaded to return, and reside among their friends. But nothing can reconcile the children of the Indians, to the customs, manners, and methods of living among the Europeans : However caressed and indulged, they droop and languish, until they return to the freedom and wildness of the forest.

Nor was there any thing in the savage state, that could refine or improve itself. While the game continued, the same method of living would have remained : And this would naturally have continued all the disadvantages, and habits of the savage state. The same method of support, would have perpetuated the same manners, maxims, and customs. Nothing

would have led a people in such a situation, to any improvements, until necessity should have introduced agriculture ; and forced them to become husbandmen, instead of remaining hunters.

Such were the disadvantages attending the savage state. They appear to have been inseparably connected with it : And of such a nature, as to prevent the improvement, progress, or increase of society. We need not hesitate to pronounce, that these disadvantages far exceeded any advantages that could attend it ; and operated with a certain and fatal tendency, to continue man in a state of infancy, weakness, and the greatest imperfection. The freedom to which it led, was its greatest blessing ; but the independence of which the savage was so fond, was never designed for man : And it is only in the improvements of civil society, that the human race can find the greatest increase of their numbers, knowledge, safety, and happiness.

CHAPTER VIII.

ORIGINAL INHABITANTS. *Observations on the Origin of the Indians, their Antiquity, Progress of Society, and Tendency to Dissolution.*

THE Man of America differed in so many respects from the men of other countries, that it has been made a question among some of the modern philosophers, whether he was originally derived from the same parents as the white men ; or ought to be considered as a different race, from the men of other countries. No inquiries have the appearance of greater difficulties than those, which relate to the origin, and antiquity of the American Indians. Without attempting to resolve all the questions that have been proposed upon these subjects, it may be of use to collect some of the facts that seem to relate to them, and to note the conclusions to which they lead.

ORIGIN. In whatever manner this part of the earth was peopled, the Indian or the Red Man, seems to have been the most ancient, or the original man of America. This race were by far the most numerous ; and they had spread over the whole continent, from about the fiftieth degree of north latitude to the southern extremity of Cape Horn. This vast extent of country, including all the variety of climates, was settled with the red men : And these men, every where appeared to be the same race, or kind of people. In every part of the continent, the Indians were

marked with a similarity of colour, features, and every circumstance of external appearance. Pedro de Cieca de Leon, who was one of the conquerors of Peru, and had travelled through many provinces of America, gives this account of the inhabitants : "The people, men and women, although there is such a multitude of tribes or nations as to be almost innumerable, and such diversity of climates, appear nevertheless like the children of one father and mother."* Ulloa, an able philosopher, and an accurate observer, visited and observed many of the Indian tribes and nations, of South America : He observed also the Indians at Cape Breton, in North America ; and saith of the latter, that they were the same people with the Indians of Peru, resembling them in complexion, in manners, and in customs ; the only visible difference, being, that the Indians at Cape Breton, were of a larger stature than those at Peru. "If we have seen one American," saith he, "we may be said to have seen them all, their colour and make are so nearly the same."† And it is worthy of remark, that no nation or people upon the earth, ever have spread over so large a tract of country, as these red men of America.

Were these men the same people with the inhabitants of the other parts of the globe ? Or did they radically differ from the men of all other countries ? 1. They were of the same *complexion*, with the most ancient nation in Asia. From authentic documents, we are able to trace the existence, and national transactions of the

* Robertson's Hist. America, Vol. II. p 462. note 45.
† Ulloa, Netic. Americanus, p. 308.

Hindoos, to an higher antiquity, than we can find with certainty in any other nation. These were the Indians, or red men of Asia. And the Indians of both continents, are marked with the same peculiarity of *colour*. The distinguishing colour of the Indian, is red, or rather a reddish brown; resembling, but more dark than a copper colour. From this similarity of complexion, it is natural to conjecture, that the Indian of Asia and of America belonged to the same family. 2. The *features* and *countenance* of the American Indians, very much resemble those of another of the nations of Asia, the Tartars. The Tartars join upon India, are spread over the northern parts of Asia, and extend to the eastern coasts of the Pacific ocean. Of their appearance and countenance, geographers give us this account: "They are in general strong made, stout men: Their faces broad, their noses flattish, their eyes small and black, but very quick."* The Indians of America are thus described, by those who had lived long among them: "The limbs are well turned, the body of just proportion, the countenance broad, their nose flat, their eyes black, small, but capable of discerning objects at a great distance."† If these descriptions had been taken from the same individual, there could not have been a greater agreement, in every circumstance of aspect and countenance.

3. Some information respecting the descent of nations, may also be derived from their *customs*. Those customs and manners which arise

* Guthrie's Geog. p. 660.
† Ulloa's and Pinto's account. Robertson's Hist. Amer. I, 460.

from the wants, desires, and inclinations, peculiar to situation and employment, will be the same in the same state of society. A hunter in Asia, and a hunter in America, will have nearly the same character, the same occupations, pursuits, and manners. But those customs which do not arise from situation, or from any natural want or desire, may be termed *arbitrary*: And the probability is, that two nations would not agree in these, unless they were derived from the one to the other. Several of these arbitrary customs, were common to the men of Asia and America.

One of these customs, was that of extracting their beards with the roots. The Tartars and the Americans, had both adopted this practice. Both of them appeared either wholly without a beard, or only with a few scattered hairs: And both of them made it their practice to extract or pluck them out with the roots. Something of the same kind is practised by the Chinese. The Tartar and the American had both contracted the same wandering or roving disposition, contrary to the customs and dispositions of most nations; who seldom have any disposition to desert their connexions and country, until they are compelled to it by necessity or force. They had both adopted the same method of war; wasting, destroying, and burning a country. The custom of scalping the dead, was one of the barbarous habits the Scythians practised. They cut a circle round the necks of those which they had slain, stripped off the skin, and carried it with them in triumph. In their marches, the Kamtschatkans never went

abreast, but followed one another in the form of the Indian file. The Tongusi, the most numerous nation resident in Siberia, use canoes made of birch bark, distended over ribs of wood, and nicely sewed together. In these customs they are exactly imitated by the Indians of America. In burying the dead, many of the American nations place the corps at full length, others place it in a sitting posture, and lay by it the most valuable clothing, provision, and arms. The Tartars did the same; and both people agreed in covering the whole with earth, so as to form a tumulus or barrow. The method, in which both people treated their nearest friends and relations, was still more extraordinary and uncommon. When their fathers and nearest friends were become extremely old and infirm, or were seized with a distemper deemed incurable, it was the custom of the Tartars to make a small hut for the patient, near some river, and to supply it with a small quantity of provisions: Removing the sufferer to such a situation, they left him to end his days, without visiting or affording him any further relief. The rudest tribes of the Americans, in several parts of the continent, had the same custom; and sometimes they made use of force to extinguish the remains of life, in their diseased and aged friends. Both people adopted this custom, opposite to the practice of all other nations: And they both viewed it in the same light, not as an act of cruelty, or of any disrespect; but as a deed of duty, and mercy: And they both assigned the same reason for it: "They were kindly relieving their friends from

the increasing and unavoidable miseries of life; and they were assisting them in their journey to the other country." Nor is it to be doubted but that they assigned the true reason and motive, upon which they acted; for no people were ever known to pay a greater reverence to the aged, or were more enthusiastic in the veneration they paid to the tombs and memories of their ancestors.

Such customs are not derived from any natural appetite, or from any thing peculiar to the state of the hunter, or the savage; but must be deemed extraordinary, uncommon, and arbitrary. Being found only among the men of Asia and America, the presumption is, that they were derived from the one to the other; or that the latter had taken them from the former.

4. In the empire of Peru, there were several appearances of Chinese customs and manners. The appearance, the dress, and the superior knowledge, of Manco Capac and Mama Ocollo; the knowledge of agriculture and the arts, in which the one instructed the men: the knowledge of spinning, knitting, weaving, and making garments of cotton, which the other diffused among the women; the high estimation which the children of the sun assigned to agriculture, above all other arts and professions; their custom of tilling a field with their own hands; the ceremony with which the Inca began the business in the spring; the festivals which attended it; the unlimited authority of the emperor, with the patriarchal aspect of the government; the benevolent tendency of their laws, and wars; and their public regulations respecting roads,

bridges, canals, industry, provision for the poor and aged, and the responsibility of parents for the conduct of their children; all, or most of these articles, bore a greater resemblance to Chinese maxims, manners, and customs, than could have been acquired in America, during the life of one man and woman, from their own observations and reasonings. They were advances towards a state of civilization, that nothing in the degraded state of the Peruvians, could have suggested, or produced, but in a long period of time.

Much pains has been taken by many learned and ingenious men, to compare the languages of the Americans, with those of other nations. But while these inquiries have been carried on with great assiduity, the most ancient language which prevailed in the east, the *Sanskreet*, "the parent of almost every dialect from the Persian gulf to the China seas,"* was itself wholly unknown: And no information has been derived from these inquiries.

We must reason then from such circumstances as we can find: And if a judgment can be formed from a similarity of complexion, features, and customs, we shall be led to conclude that the men of America were the same people with the men of Asia; but that their descent, was not from any particular one, but from several nations on the eastern continent.

No difficulty could ever have attended such emigrations. The continents of Asia and America approach so near to each other, that the

* Preface to the Grammar of the Bengal Language, p. 3. The first translation from the Sanskreet language was published in 1785.

inhabitants are frequently passing from the one to the other. The discoveries of the Russians, and the greater discoveries of the most celebrated modern navigator, Captain Cook, have made it certain that if the two continents are seperated at all, it is only by a strait, not more than eighteen miles in width. At no time within the period of history, was the navigation of the rudest tribes unequal to the passage of such a strait. And probably there never has been any difficulty, in passing from the one continent to the other.

It is not improbable that the red men of Asia, might find a passage into America altogether by navigation. "It has been long known that the Asiatic nation called the *Malayans*, possessed in former times, much the largest part of the trade of the Indies; and that their ships frequented, not only all the coasts of Asia, but even those of Africa, and particularly the large island of Madagascar. It has been more lately discovered, that the same nation had extended their voyages and migrations from Madagascar, to the Marquesas, and Easter Island; that is nearly from the east side of Africa, until we approach the west coast of America. This space includes almost one half of the circumference of the globe. Thro' this immense space the *Malayans* had spread, made settlements, and founded colonies in the islands at all the intermediate stages, at an immense distance from the parent continent. The voyages of Captain Cook have afforded the proof of these historical facts: And they have been ascertained not only by a similarity of

manners and customs, but by the affinity of language, and a collection of similar words, made from all the widely diffused islands and countries visited by this celebrated navigator."

A PEOPLE who had thus spread over one half of the globe, from the coast of Africa towards America, and who had settled all the islands that lay between them, could scarcely have avoided arriving upon the western coast of America, and leaving some of her people there. Several of the islands that were settled, were near the American coast; and it must have been much easier to have discovered the continent along the western coast of America, than to have found so many small and scattered islands. It is therefore highly probable, that the same people who spread over the islands in the Pacific ocean, should at times arrive also on the western shores of the continent. In both these ways might people from different nations in Asia, find a passage into America, and at very different periods of time.

The Indians however, were not the only men which appeared in America. Another race or kind of men were settled in the northern parts of the continent. These have been called *Esquimaux*. In their colour, dimensions, features, and customs, they differed much from the red men. They were of a fallow or brownish complexion: Their size about four feet in height; their faces long and wrinkled; their noses thick and compressed; their eyes small and sunk; their cheeks much raised; their eyebrows and eyelids thick; with small legs and hands. This nation had spread over the most northern

parts of America. They are found in Greenland, on the coast of Labradore, in Hudson's bay, and in all the coasts and islands on the west side of America, opposite to Kamtschatka. Their migrations had extended to Norton's sound, Onolashka, and prince William's sound; one thousand five hundred leagues from their stations, in Greenland and Labradore. The sameness of the people in these different places, has been ascertained by their manners, customs, features, and complexion; but more decidedly by such an affinity and similarity of language, as leaves no room for doubt. It will be easy to determine from whence this nation of the *Esquimaux* proceeded. Every thing in the appearance of this people, denotes them to be the same with the Laplanders, the Zemblans, the Samojeds, and the Tartars in the east.---Like them they are a nation of dwarfs; largest towards the south, but decreasing towards the north. They have all the same fallow complexion, deformed features, ugly appearance, and singular customs. Whether the inhabitants, could pass from the northern parts of Europe into America by land is as yet unknown. But the passage by water, was at all times easy; and certainly at a very early period. In the voyage from Norway to Iceland, and from Iceland to Greenland, or the coast of Labradore, the first part of the voyage was much the largest: And this was practised from the earliest times, of which we have any account. For the ninth century, when navigation was extremely imperfect, the passage from Europe to America was so well understood, that the Norwegians planted

and settled their colonies in Greenland. There is but little room then to doubt but that the nation of the Esquimaux was derived from the same people in the northwest parts of Europe. Their descent therefore must have been from the Tartars of Asia, for it was from them, that the Laplanders, who are spread over the northwestern parts of Europe, were derived. In the year 1769, Pere Hall, an astronomer of Hungary, was sent into Lapland to observe the transit of Venus. This able philosopher had a good opportunity to become acquainted with the manners, customs, features, and language of the inhabitants in that part of the globe: By his account, "it appears that the Laplanders are only degenerate Tartars; and that they, and the Hungarians, originally sprung from the same breed of men, and from the same country."*

The two kinds of men then that were in America were derived from the same source. The Indians and the Esquimaux, were both descended from the man of Asia; and probably the most of them, from the same nation, the Tartars. In America then nature had not made different races of men, fitted for, and originally placed in different climates. The men of America were the same with the men of Asia: And both of them migrated from one place to another, and spread through all the various climates of the earth. They were distinguished by the differences of complexion, dimension, features, arbitrary customs, and peculiarities of manners, as much as the inhabitants are in other parts of the

* Kaim's Sketches of the Hist. of Man, I. p. 11.

globe. But these differences must have been derived from climate, food, manner of living, or some other circumstance ; for they certainly were not derived from a different origin, or any particular local creation.

The constitution of man appears to be the same, in every part of the globe. Nature has given to him the same physical and moral powers, capable of different degrees of improvement according to the state of society in which he shall be placed. But in no country, or part of the globe, does man appear to be an animal of climate. Among animals nothing is more apparent, than that some are animals of climate ; that is, they are fitted by nature and constitution to some particular part of the globe ; where alone they can subsist, multiply, and obtain their proper perfection. Thus the animals peculiar to the torrid and frigid zone, never leave their particular climates out of choice ; and when a change of climate is forced upon them, they degenerate, and waste away. It is evident that man is not such an animal. He can multiply, and attain his proper perfection in all the various climates of the earth. Nature has not furnished him with any kind of covering, fitted to a hot, to a temperate, or to a cold climate : This is left to his own reason and industry, according as his situation may require. Nor has nature assigned to him any particular, invariable colour. Black is the absence or want, and white is the mixture of all colours : And these are the extremes between which, all the various complexions fall: Nature therefore has not assigned to man any covering, or any invariable

colour, or any thing in his constitution, that has fitted him particularly for the torrid, temperate, or frigid zone : But has given him a nature and constitution, adapted to every climate. And in every climate which produces his proper food, the white, the red, and the black men, will subsist, multiply, and attain their proper perfection.* If nature has thus made man the animal of all climates, would it not be altogether unphilosophical, to look out for local creations ; or to introduce miraculous interpositions of the Deity, to explain those differences among men in other places, which in America, we are certain were derived from natural causes ?

Antiquity. In attempting to estimate the antiquity of the most polished nations, we can derive but little information from history. No records, no monuments, no writings can be found, that reach back to so ancient a period. Least of all is this to be expected from a race of savages, which had not the knowledge of letters. All the information we can obtain, must be derived from such circumstances and events, as imply or denote certain periods of years ; and of these there are but few, in the transactions of the savage state.

Some information may be collected from the *extent* of the country they had settled. The continent of America, in its dimensions, amounts to one third part of the habitable globe. Over the whole of this continent had the savages extended, when it was first discovered by Columbus, in the year 1492. Their population had

* Appendix No. V.

then attained its greatest perfection. No increase of their numbers has any where appeared to take place, since that time. No circumstance or event has taken place during the three hundred years, that the Europeans have been acquainted with the Indians, which can lead us to suspect that the savage state either has, or can admit of a greater population, than what it had already attained. Nor is it probable, that any increase of numbers, and population, could have taken place, while hunting continued to be the method of procuring subsistence. From the observations that were made in Virginia, and Massachusetts, it has been computed that the population of the Indians upon the sea coasts, could not be estimated higher than one for every square mile. In the inland parts of the country, the Indian population certainly did not exceed this. Geographers have computed the number of square miles in America, to amount to fourteen millions, one hundred and ten thousand, eight hundred and seventy four. We cannot make a nearer computation, than to suppose this was about the number of Indians it required in the hunter's state, to spread over the whole continent. How long a period would it require, for the savages to increase to such a number ? There has been no instance of a more rapid increase, than that of the British colonies in America. They were aided by new emigrations from Europe : But so much were they retarded and broke up in their settlements by war, before the American revolution, that they did not in fact double their numbers in thirty years. The families of the Indians did not

contain more than half so many members, as those of the white people. The Indian population then will be highly estimated, if we compute it to be one half of that of the white inhabitants ; and instead of thirty, admit sixty years as the period of doubling. Assuming the population to have proceeded from one male and female, this would require thirteen centuries and an half to have spread over the whole continent, and produced one inhabitant to every square mile. The period of population could not have been less than this. But probably this period was completed long before Columbus came into America. The Indians in several places, had gone out of the hunter's state. On the sea coasts they were advancing into something like monarchy. In Mexico and Peru they were become extremely numerous, and had established extensive and powerful empires ; the duration of which, could be traced back four or five hundred years. From their extent and population then, we deduce with some degree of probability, that the Indians must have been settled in America eighteen centuries when Columbus first discovered the continent. This will carry us back three centuries before the christian era.

The number and variety of their *languages* implies and requires a much longer duration, and an higher antiquity. The Indians of America had not only spread over the continent, but they had every where formed themselves into a number of small tribes. If we may judge of the number of these tribes from what took place in New England, and Virginia, they must have amounted to thousands. Several of these

tribes had subsisted so long in a national form, and as a distinct people, that they had formed a particular language for themselves. There were three original languages spoken in Canada; the Sioux, the Huron, and the Algonquin.* In New England, there were one or two others.† In Virginia there were three, different from either of these.‡ In Mexico thirty five were discovered. In South America there were still more. In Maraguon, the Portuguese counted fifty.§ In each of these places, the dialects were nearly as many as their tribes. And yet these places made but a small part of the continent. What an immense period of time does this require? A language may be separated into different dialects in a few generations: But for these dialects to recede so far from one another, as to lose all resemblance and affinity; and several new languages to be formed, radically differing from one another; such an event could not take place, or be effected, until the tribes had subsisted for many centuries, as distinct and separate nations. We cannot estimate this process by fixed periods of time, because we have no facts from which a computation can be made. But it may be compared to the state and progress of things, in the other hemisphere: and we shall find the number of languages radically differing from one another, more numerous among the Americans, than they were in Asia and Europe. Is not this an indication, that the red men of America are as ancient as the other nations of the earth?

* Abbe Raynal, V. 103.
† Hutchinson, I. 457, 479.
‡ Jefferson's Notes on Virginia, p. 99.
§ Clavigero's Hist. of Mexico.

Learning and science they had none : But nature, situation, and necessity, would operate as certainly, and as regularly upon them, as upon any other people. And would it not require as long a period of time to produce, and to form a language among the savages, as among any other people ? This circumstance seems to denote an antiquity, fully equal to that, which is claimed by any of the nations of the other hemisphere.

THEIR antiquity may also be traced back to the time, *when the most useful arts were unknown ;* and when the red men of Asia had not the use of the metals, or of domestic animals. Some of the arts must have been nearly coeval with the human race ; for neither food, raiment, or habitations, could be procured without something of them. Other of the arts have been gradually advancing, without owing much to any original inventor. And many of them are of such antiquity, that their origin and inventor are beyond the reach of history. This is the case with the most necessary and useful arts of life. The origin of spinning, and knitting, of the plough, the loom, and the forge, were more ancient than any of our historical monuments, records, or traditions. But when those arts were invented, they never could be lost. Amidst the wars, changes, and revolutions, to which nations are exposed, what are called the fine arts may perish and be lost. But no vicissitudes of human affairs tend to destroy those arts, by which all men derive their subsistence ; and which are equally necessary to the conqueror and to the captive, to the oppressor and to

the oppressed. The same observation may be made with respect to the use of domestic animals. A people that have experienced the advantages derived from the food they afford, and from the labour they perform, would never lose this kind of knowledge; but endeavour to apply it to such kind of animals, as they found in the country to which they repaired. Of all these, the Indians of America were ignorant. They knew not the use of the metals, spinning, weaving, or the domestic animals: They had derived no such knowledge from their ancestors, nor had they acquired it themselves. At what period then, must they have settled in America? Before these arts were known in Asia. Before the Scythians became husbandmen, and before the most necessary and useful arts were known in the midst of Asia. Without attempting therefore to go back to the beginning of the creation of God, we can find circumstances that will carry us as far back into antiquity, as any other nation can pretend. The history and pretensions of the Chinese, do not imply or suppose any circumstances of greater antiquity, than those which have been mentioned. And it must be from circumstances and facts, not from tradition, that we must trace the antiquity and origin of ancient nations.

Progress of Society. The progress of society among the Indians, would make a curious, and most useful part of their history. The rudest and most simple state that took place among them, was that which I have been describing. Wheresoever the savages continued to derive their support from hunting, they con-

tinued from age to age in the same condition, and made no improvements. Where the means of subsistence were plentiful, and easy to be procured, the Indians had advanced beyond the state of an hunter, and began to increase their numbers, and their agriculture. In such places, society began to assume a different form, from what it bore in their rudest and most simple state. And the tendency of it was every where to *monarchy*. In the southern parts of New England, and Virginia, some of the tribes were advancing fast to the form of hereditary monarchy. In the hotter climates it was already established. This was the case in Florida, among the Natchez on the Missisippi, in Cuba, Hispaniola, and all the large islands. In Bagota, Mexico, and Peru, monarchy had acquired its perfect form, its full powers, and a complete establishment. In each of these places, the progress of government had been from perfect freedom and independence, to almost absolute and unlimited monarchy. In the course of this progress, two remarkable phenomena appeared ; In one part of America, an empire and a monarchy was established, in most respects resembling those which had arisen in the other hemisphere. In another part of America, an empire and a monarchy was produced, far superior to those which were produced in the other parts of the globe.

In the empire of Mexico, almost every thing had taken the Asiatic, and European course. The great body of the people were reduced to a degraded and humiliating state ; and held their lives, and performed their labours, under various

names and degrees of degradation and abasement. A body of nobility were possessed of ample territories, of great privileges, powers, and honours, under different names and degrees. Above, and over all, was the monarch, enjoying supreme power and dignity. After being elective during the reign of eleven of their sovereigns, the monarchy was become almost absolute and hereditary, in Montezuma. The system of religion agreed perfectly well to the nature of the government : It was severe, cruel, and barbarous ; and delighted in the sprinkling and shedding of blood : Human sacrifices of all others were esteemed the most acceptable, and availing ; and the priests had the privilege, the honour, and the profit, of announcing or removing the vengeance of the gods. This system of monarchy had acquired a stability, a regularity, and a vigeur, equal to any monarchy that was then upon the earth. Upon comparing the spirit of monarchy, untempered by representation, in America, in Asia, and in Europe ; the spirit and the principles of it, will be found every where to have operated alike. It degrades the body of the people below the condition and nature of man. It exalts the nobles and the sovereign above the condition and state, which nature designs or admits. In one form or another it has always been attended with a persecuting, cruel, and bloody religion, put into the hands of a wealthy, and powerful priesthood. It has constantly produced the spirit of war and destruction ; and generally derived to itself security, wealth, and power, from the misery, destruction, and slaughter, it has entailed on the

human race. By placing the rulers in a situation altogether unnatural, that is, above all sense of accountability to their fellow men, it has produced that constant, steady, and universal abuse of power, which, in every part of the globe, has been the distinguishing and certain effect of this form of government. Its spirit and principle have every where been the same ; not the *honour* which the great Montesquieu wished to ascribe to it, and wanted to find in it, but that total want of regard and accountability to man, which, with great accuracy and propriety, has been lately named *a contempt of the people.*

THE empire of Peru was formed and governed by a species of monarchy, different from what has ever taken place among any other people. Twelve successive monarchs, for a period of more than four hundred years, had been invested with hereditary and absolute power. They claimed this authority, not as derived to them in any manner or degree from the people, but as the absolute and exclusive donation of heaven. They announced themselves to be the children of the sun, and clothed with divine and unlimited power to direct all the civil and religious affairs of the people. The sovereign was named *Inca ;* and so sacred and pure were the family of the Inca's, in the minds of the people, that they were universally esteemed incapable of committing a crime, or falling into an errour : No other family might marry or mingle with it, for fear of polluting the heavenly blood. The people looked up to them, as to beings of a superior and heavenly race : And all disobedience to them, was viewed not barely

as a crime committed against men, but as an act of rebellion against God. The nobility of course was nothing more than families of office. Though a difference of rank had taken place throughout the empire, all but the children of the sun, were supposed to belong to the common race of men. The people were well-clothed, and fed; every where distinguished for their industry, economy, moderation, contentment, and happiness. Over this people, the Incas, though absolute in power, established a government the most mild and gentle, that has ever taken place in any part of the earth. The morals of the people were so pure, that few crimes were ever committed: The genius of the government was so mild, that few punishments were ever executed: And when they were, they were viewed as the necessary acts of God, and not of men. Their government, the dominion of prosperity and virtue, was esteemed by the people the dominion of God and his Inca. Their system of religion, like their government, was mild, gentle, and pacific. The sun, the emblem of light, serenity, fertility, beneficence, joy, and life, was the object of their adoration. They offered to him a part of those productions, which they derived from cultivating the earth, enriched by his genial warmth. They presented to him specimens of those works of ingenuity, which they had performed by his light. And they brought to him some of those animals, which were nourished by his influence. But the Inca never stained their altars with human blood; or admitted the savage idea, that the source of beneficence could

be pleased with the persecution, cruelty, and destruction of men. Their system of war partook of the same spirit of mildness, and wisdom. They fought not to exterminate, but to conquer: they conquered not to enslave, but to improve, to civilize, and refine. No cruel torture awaited the captive. No barbarous marks of degradation, disgrace, triumph, or slavery, were reserved for the prisoners. They were taught the same system of government and religion, as the rest of the people: they were admitted to the same privileges; and treated with the same lenity and mildness. Of all the triumphs of the Inca, the noblest and the greatest, was to diffuse the manifold blessings of peace and happiness, to the people whom they had subdued.

Such was the genius, the spirit, and the effect, of the system of monarchy that was established in Peru. We need not hesitate to pronounce it superior to any, that was then to be found upon the face of the earth. The genius and the spirit of it, were above all others, mild and gentle: the object and the aim of it, were in fact, the improvement and the happiness of the people. And if any government ever produced this effect, that government was the monarchy of Peru: Not the attainment of the most polished nations of Asia, and Europe, of their arts, science, and improvement; but of the greater wisdom and simplicity of the Indians, and Incas of America.

We have here a phenomenon, new, and almost incredible in the political world. Absolute, unlimited, and hereditary monarchy, which

has never failed before or since to prove one of the heaviest curses, which has fallen upon mankind ; in Peru became mild, gentle, and beneficent : And was constantly employed during the reign of twelve successive monarchs, to refine, civilize, and improve the people ; and to do the greatest good to mankind. And yet this was a system not founded in truth, or in nature ; but in delusion and superstition. What could give it a direction so steady, uniform, and benevolent? Not the form, but the principle of it. It contained the best and the purest principle, that can enter into the nature of human government. Its origin, duration, and power, depended wholly upon *the public sentiment*. The Inca claimed immediate descent, and relation to the sun. The sun was the emblem of peace, and benevolence. Had the monarch stained his character by enormity in crimes and vices, or by a constant abuse of power, nature would have taught the Peruvians that monsters in corruption, vice, and cruelty, could not have been the favourite children of the Deity. If the Inca had been viewed in this light, all his divinity, and his power would have ended. His power was founded altogether in the opinion the people had formed of his divine descent, qualifications, character, and virtues. So solicitous had the Incas been to preserve this opinion, that through the whole period of their successions, they had taken the most scrupulous care not to endanger or oppose it, by any base and unworthy conduct. And while they thus proved the constant friends and benefactors of the people, the public esteem and veneration increased. In the benevolence

and usefulness of the Inca, the people believed they saw the children of the sun: And in the affections and opinions of the people, the Inca found an absolute and unlimited power. But if his conduct had plainly discovered that instead of being the child of the sun, he was the child of folly, of vice, and abominable iniquity, his divinity, his power, and his empire would have ceased with the public opinion.

Instead then of being founded in a contempt of the people like the empire of Mexico, the monarchy of Peru had the singular good fortune of being founded in the public sentiment. This rendered the Inca accountable to the people for every part of his conduct: And this sense of accountability would keep a constant sense of duty and character upon his mind. Thus under the form of absolute hereditary monarchy, the government of Peru had the uncommon advantage of excluding nobility with all its odious distinctions and claims; and of embracing the best and purest principles, upon which civil government can ever be founded. The Indians seem to have been the only people, among whom, a regard to the public sentiment and benefit, did in fact constitute the spirit and principle of hereditary and absolute monarchy.

Tendency to Dissolution. However beautiful and promising the progress of society once was among the Indians of America, it is now every where tending to decay and dissolution; and this has been its tendency, ever since the first arrival of the Europeans. In the destruction of the empires of Mexico, and Peru,

Cortez and Pizarro performed the most accursed transactions that ever were done by man. And wherever the Europeans have settled, misery, calamity, and destruction, have been entailed on that unhappy race of men. The vices we have taught them, the diseases we have spread among them, the intemperance they have learnt of us, and the destruction of their game, are evils for which the savage is unable to find a remedy. A contempt of our morals, a horrour at the knavery that has attended our commerce with them, and the constant advances we have made into their country, have filled their minds with prejudices against our arts and improvements. This, added to the frequency and bitterness of their wars, to their constant hardships and sufferings, and to a defective population, but too plainly denote the event. The constant waste and decay of this people, must end in their total destruction: According to the present course and tendency of things, in two or three centuries, the whole race must become extinct. Instead of wishing for such an event, it would add to the glory of the United States to make a serious attempt to prevent it. It has been the practice of arbitrary governments to sport with the liberties, and lives of men. A government of reason and nature ought to attempt to conciliate the affections of a free, brave, independent, and generous people. It would be a greater glory than we have ever yet attained, if we could find out a way to impart the blessings of the civil state, to a people whose greatest miseries and misfortunes have been derived from the superior arts, the policy, and the power of civilized nations.

CHAPTER IX.

FIRST SETTLEMENTS AND WARS WITH THE INDIANS. *Earliest accounts of the Northern Indians. Discoveries and settlements in their country by the French. Origin and progress of War between the natives and the Europeans. Influence of the Priests. French Expeditions. Proceedings of the Governor of Newyork. Destruction of Montreal by the Iroquoise. From the year* 1535 *to* 1689.

SUCH were the men who were spread over the northern parts of America in the fifteenth century. It does not appear that any other men but the Indians had ever been in the country, previous to that time. On October the 12th, 1492, by astonishing efforts of genius and perseverance, COLUMBUS discovered the western hemisphere, at the island of Guanahana. Among all his discoveries the most important, was that of a new race of men ; of men in their appearance, manners, habits, and customs, very different from the inhabitants of the eastern hemisphere. Influenced by the spirit of curiosity, enterprize, avarice, and ambition, the subjects of the Spanish monarchy embarked in great numbers to the southern parts of America ; visited the natives, subdued the accessable parts of their country, and planted them with the men of Europe. These attempts and measures every where produced the same effects, bloody and barbarous wars, between the men of the two continents ; now for the first time, in

termixing and mingling together.

While the court of Spain was carrying its conquests, and advancing its interest in the southern parts of America, the courts of France and England turned their attention to the northern parts of the continent; and endeavored in those regions to find avenues equally favorable to commerce, conquest, wealth, and power. Francis the first, at that time king of France, was one of the most active princes of the age; and though constantly involved in wars and misfortunes he did not intend that the kings of Spain and England should divide the whole continent of America between themselves. With a view to explore the northern latitudes, and to find a place for a French colony, he fitted out *James Cartier* on a voyage of discovery. Cartier sailed from St. Malo, on the 20th of April 1534; and in the course of the summer entered the mouth of Canada river, visited the bay of Chaleur, and that of Gaspe; and from thence sailed to the northward, till he discovered the land on the opposite side of the river. Having made these discoveries he returned to France, and arrived at St. Malo on the fifth of September.

The next year he was fitted out with three ships, and arrived at the isle of Orleans, in the beginning of September, and came to anchor between the island and the north shore. To the river he gave the name of *St. Lawrence*; and leaving his ships at anchor on September the 19th, he set out with his pinnace and two boats upon a voyage up the river to Hochelaga; where he arrived October the second, and gave to the

place the name of *Montreal*, by which it has ever since been denoted.

Instead of meeting with hostilities at either place, Cartier was received by the natives with all the demonstrations of joy, which they were able to exhibit. At Hochelaga the Indians had intelligence of his approach, and made preparations to give him the most friendly reception. The savages, to the number of about a thousand, came forward in a body to bid him welcome to their country. The men were on one side, the women on the other, and the children in a body by themselves; and the whole came forward singing and dancing, with every appearance of the highest confidence and joy. To their new guests, the Indians made presents of corn, fish, and such other kind of provisions as they had; in return, the Frenchmen gave knives, beads, and other trinkets. The first night the Europeans lodged in their boats, and the natives watched on the shore, dancing all night round their fires.

The next day Cartier with twenty five of his company set out on a visit to the Indian town. He was met on his way by a man, who appeared to be one of their chiefs; and whose business it was, to introduce him to the capital of their country. Cartier presented to the Indian chief two hatchets, two knives, and a cross, which he hung over the Indians neck, and taught him to kiss. Passing from the river towards the town, the French went through groves of oak, the acorns of which were fallen, and were so numerous as to cover the ground. They passed also through fields of corn, some of it gathered,

and all ripe. In the midst of these fields of corn, and surrounded by them, was the Indian capital, Hochelaga.

The construction and state of the town discovered a degree of improvement, of which Cartier had before met with no specimen in the Indian country, and had no expectation to find from the Indian genius. It was laid out in a circular form, and was surrounded with three lines of palisadoes ; through these palisades there was but one passage or place of entrance, and that was well secured both with stakes and bars. On the inside, the fortification consisted of what in the European language was called a rampart of timber, to which the ascent was by ladders ; heaps of stones were also collected, and placed in such situations as would best serve the purposes of strength or defence. Within these fortifications there were about fifty Indian houses : these houses were a kind of long huts, built with stakes, and covered with the bark of trees. In the middle of each Indian house there was a fire place ; and around the sides were the lodging or sleeping places, the floors of which were bark, and the covering made of skins. In the upper parts of the houses were scaffolds, on which they placed and dried their corn. Their provisions were corn, beans, squashes, pumpkins, and fish. Their corn they pounded in a kind of wooden mortars, and when beat mixed with water, and baked on hot stones. Their fish was dried in the sun, or in their houses, and preserved in troughs. Their squashes and pumpkins were generally consumed while they remained green. At Hochelaga the people ap-

peared to derive their chief subsistence from fishing and tillage, but in the lower parts of the river, hunting seemed to be the chief employment : But at both places, the sachem, or chief man of Hochelaga was considered as the sovereign, to whom the people were in subjection, and paid tribute.

In the centre of the town there was a large open square : to that place Cartier and his company was conducted, and mats were spread on the ground for the new guests to sit on. The Indian men seated themselves in a large circle round them ; but the women came weeping, with joy, rubbing their hands and faces, and bringing their children to be touched by their new visitors. At length the sovereign, the Indian King, was brought on the shoulders of ten men, and placed on a mat next to Cartier. The monarch of the savages had a covering made of the quills of the porcupine, died red ; this he took off and gave to the French captain, requesting him at the same time to rub his arms and legs, which were much affected with a palsy. Several other persons declining with age or sickness, were also brought to be touched and healed by the strangers. Cartier saw at once that the Indians viewed him and his company as gods ; or at least as a race of beings far superior to themselves ; and resolved to avail himself of their weakness and superstition. He laid his hands on them, cast his eyes to heaven, repeated some devotional passages from his service book, and assumed such features and gestures as he supposed would most engage and affect a savage mind and tribe. The Indians

attentively observed all his motions and gestures, and endeavored to imitate and repeat them.

THIS farce being finished, Cartier proceeded to exhibit more substantial proofs of his benevolence and power. He signified to the multitude that he wished the men, women, and children, would divide themselves into separate companies. The natives immediately made such an arrangement. To the men Cartier then made a present of hatchets, to the women he presented a quantity of beads, and to the children he gave a multitude of rings. The moment these donations were ended, he ordered his drums to beat, and the trumpets to sound. Astonished but delighted with the scene the savages shouted, and the whole company fell to dancing. What could be wanting to convince the multitude that their new guests were gods, full of benevolence and power?

CARTIER next proposed to ascend the hill, under which the town was built. The Indians conducted him to the summit, and pointed out to him the course of the river above their town; and informed him that he might sail on it for three moons without coming to an end: that it ran through two or three lakes; that beyond them there was a sea of fresh water, to which they knew of no limits; that on the other side of the mountains there was another river which ran to the southwest, through a country in which there was no ice or snow; and that there were such metals as silver, gold, and copper, to be found in the country. Having obtained all the information which he expected, Cartier pre-

pared to depart, and left Hochelaga October the fourth. The natives accompanied the French to their boats, carried such of them as were sick upon their shoulders, and followed them along the banks of the river to a considerable distance; discovering the marks of sorrow and distress at their departure. On October the eleventh Cartier and his company arrived safe at the isle of Orleans, where he tarried that winter, and attempted to found a colony, but which was soon broke up.

From this voyage, the first that had ever been made into the interior parts of North America, the manners and dispositions of the natives became in some measure known. It was found that the Indians were divided into many distinct tribes or nations; which, instead of being in a state of union or confederation among themselves, were generally in a state of hostility and war. Among other proofs of their hostility to each other, Cartier found at the isle of Orleans the scalps of five men, spread out, and dried like parchment. These, he was told were taken from some of the southern Indians, with whom they were constantly at variance; and that the scalps of their enemies were considered as the most honorable evidence of their own prowess and exploits in war. But with respect to their new visitors, instead of any appearances of suspicion, fear, or hostility, they were every where received with the tokens of friendship, confidence, and the highest expectations of uncommon benefit and advantage from their visitations. Instead of making any preparations to oppose, the natives received them with the high-

est marks and effusions of joy, as beings of a superior order, from whose benevolence and power they expected to receive uncommon benefits and advantages. Nor was it till the Europeans began their enterprizes of injustice and violence that the natives had any fear or suspicion, or made any preparations either for defence or hostility.*

The colony attempted by Cartier having failed, no further attempt was made either to explore, or to make any settlements in the interior parts of Canada, till the year 1603. That year a voyage was undertaken by Samuel Champlain, a man of a noble family in France. He sailed up the river St. Lawrence as far as Cartier had proceeded in 1535, and visited the places which that celebrated navigator had described. Passing the isle of Orleans he came to anchor at a place called *Quebec*, which in the language of the natives denoted a strait. Champlain remarked that this place might be approached by the largest vessels, that it was surrounded by water on three of its sides, had a situation elevated and commanding; and that with a little labor it might be made a place of great strength, and was in every view a fit place to erect a fort, and begin a settlement. He then proceeded up the river to Hochelaga or Montreal, and made many inquiries of the natives respecting their country, its rivers, lakes, productions, and inhabitants. Without fear or suspicion, and with the most artless simplicity, the Indians informed him that there was a com-

* Hakluyt Vol. 3, p. 201—209. American Biography Vol. 1, page 158—184.

munication to the south, by means of the lakes with a fertile country, which belonged to a powerful and warlike nation called the Iroquoise; that there were several and large lakes to the west, to one of which they knew of no bounds; and that to the north there was a large inland sea of salt water, the limits of which were also unknown. Having obtained this information, Champlain returned to France to communicate his discoveries to the government; and to procure assistance and supplies, to effect a settlement in the country.

In 1607 the establishment of a colony on the river St. Lawrence, became an object of serious attention to the court and merchants of France. It was concluded that such a colony would extend the fur trade, and open a communication to China through the western lakes; and thus serve to benefit the kingdom, and to enrich the adventurers. Encouraged by these expectations, several vessels were fitted out in the year 1608, to begin a colony. Champlain had the command. He arrived at the place called *Quebec*, in the beginning of July. In his former voyage he had fixed upon this, as the most eligible place for a settlement, and upon his arrival he immediately began to cut down the trees, to clear up the land, to erect buildings, and prepare the soil for gardens and fields. At that place he spent the winter with his company, in the course of which they suffered much from the severity of the climate, and the prevalency of the scurvy.

Having began his colony at Quebec, in the spring of the year 1609 Champlain set out to

explore the southern lake, which the Indians informed him opened a communication with the warlike nation of the Iroquoise. Taking with him a party of the natives, and two Frenchmen, he went up the river now called Sorel, and explored both the southern lakes. To the largest of these he gave his own name, *Champlain*, by which it is still known. To the other he gave the name *St. Sacrament*, but which has since been called Lake *George*. On the shore of the latter, Champlain with his company was discovered by a party of the Iroquoise. Between these Indians and those at Hochelaga, a war had long subsisted, and a skirmish now took place. The Frenchmen were armed with musquets, and Champlain killed two of the Iroquoise himself, with that weapon. This was probably the first time the Iroquoise had ever seen the effect of the European arms, and the victory over them seems to have been compleat. The whole party were put to flight, and the scalps of fifty of them were taken and carried in triumph to Quebec.

In the fall Champlain returned to France, and came again to Quebec in 1610; but so slow was the progress of his colony that it was not till 1626 that Quebec began to assume the appearance of a city, or had any other fortifications than those of wood. That year the fortress was rebuilt of stone; and preparations were made to defend the place not only against the natives, but lest some of the European vessels should approach, and attempt to carry the works. Nor were the preparations needless: A war had broken out between Charles I. king of

England, and Lewis XIII. king of France ; and as the English were carrying on their settlements with great appearance of success in *Virginia* and *Massachusetts*, it was proposed in the English cabinet, to attack the French settlements in North America. In 1629 an armament was fitted out in England for this purpose, and the command given to Sir David Kirk. He sailed up the river St. Lawrence and appeared with his ships before Quebec. The city was in no condition to resist his force, and Champlain was obliged to capitulate. Agreeably to the articles of capitulation, Champlain was sent to France in an English vessel. If he was mortified by the capitulation, he was more mortified by finding that his new colony was an object of but little consideration in France ; and that the loss of it was scarcely regretted.

MANY thought it was not worth retaining, that it had already been attended with an expence far above its value, and probably the case would be the same in future. Others were of opinion that the fur trade and fishery were national objects of real consequence, and that the settlement of Canada was the sure method of increasing their importance, and would serve as a nursery for seamen, and thus eventually prove highly beneficial to navigation and commerce. The councils of Lewis XIII. were so little acquainted with the advantages arising from colonies, or with the value of their settlements in Canada, that they did not think it an object of any consequence to demand the restitution ; and it was more a sense of honor than a regard to interest that led them to wish for the restora-

tion of the country ; having lost it by what they esteemed an English encroachment on their claims, pride and honor urged the French court to effect the recovery of a country, which yet they believed was of little or no value. Champlain availed himself of these sentiments and feelings, and as the English monarch did not concern himself much about the matter, the solicitations of Champlain prevailed ; and by the treaty of St. Germain's, Canada, Acadia, and Cape Breton, were restored to France in the year 1632.

Having obtained the restoration of the country, Champlain resumed his favorite government and employment, and continued zealously engaged in the affairs of the colony till the month of December 1635 ; at which time he died governor of the colony, of which twenty seven years before he had been the founder. Champlain is represented by the writers of that time, as a man of much penetration, integrity and activity. He could not have succeeded in founding his new colony, if he had not been active, enterprizing, firm and brave. The Ecclesiastical writers represent him as a man of great piety, and remarkably zealous for the propagation of the catholic religion ; and they record with great pleasure, one of his speeches, that " the salvation of one soul was of more value than the conquest of an empire." The work in which he was engaged, required great abilities, and great virtues ; without these he could not have succeeded in establishing a new city and colony in the midst of numerous, warlike, and savage nations.*

* Charlevoix Hist. Nouv. France, Tom. 1. p. 197. Abbe Raynal, Vol. 5. p. 130. Amer. Biography, Vol. 1. p. 341.

In all countries, the succeeding state of society seems naturally to result from the measures and pursuits of an earlier policy. While zealously engaged in promoting the welfare of his new colony, it was the misfortune of Champlain to entail upon it the miseries and curses of war. Three of the most powerful of the savage nations, the Iroquoise, the Algonquins, and the Hurons, were engaged in a fierce and bloody war when Champlain was laying the foundations of Quebec.

The Iroquoise were spread over an extent of country, nearly eighty leagues in length, and more than forty in breadth. Their country reached to lake Erie, lake Ontario, the river St. Lawrence, and the countries which now belong to the States of Pennsylvania and Newyork. To the eastward it took in lake Champlain, and the western parts of Vermont, and the Indians on the banks of Susquehanna, Delaware, Hudson, and Connecticut rivers, were in a kind of subjection to them. The land between these extensive limits was fertile, abounded with game, and was watered by a number of fine rivers, rich in the plenty and variety of their fish. The inhabitants consisted of five nations, and contained many thousand warriors. Their five nations were formed into an united or confederate body, which bore the appearance of a number of confederate republics. In the grand council of the whole all the affairs of peace and war, and other general concerns were determined. These confederate tribes or five nations, formed a more powerful body than any of the adjacent nations. They were generally at war

with the neighboring tribes, and on account of their numbers, power, and conquests, were become the objects of fear, dread, and aversion, to the other nations. At the time when the French were forming their colony in Canada, the five nations of the Iroquoise were engaged in a war with the Algonquins and Hurons. The Algonquins lived along the banks of the river from Quebec to Montreal. The Hurons were dispersed about the lake that bears their name. These, with some other tribes of less consequence, had suffered severely from the inroads of the Iroquoise; and were unable to make effectual opposition to their arms.

Instead of attempting to introduce a reconciliation among these hostile nations, Champlain meaning to avail himself of their quarrels, soon engaged in their wars. He took a decided part with the Algonquins, and went himself with the Hurons in their expeditions against the Iroquoise: He instructed them how to carry on their wars, was personally engaged in several of their battles, and in one of them received a wound not a little dangerous to his life.

The Indians saw with wonder and surprise the effect of the European arms, in the attacks which Champlain had made upon the Iroquoise at lake Sacrament, and other places. The Algonquins and Hurons soon gave a friendly attention to the new settlers, and meant by their assistance to gain the superiority over their ancient and haughty foes. Of course they favored the settlement of the French, gave them lands, courted their friendship, and invited them to settle in every part of their country; and by

their assistance they obtained many and repeated advantages over the Iroquoise. Nor was it until the five nations became accustomed to the effect of the European arms, that they could make any effectual opposition to an enemy, whom they had before defeated and despised. But instead of being subdued or disheartened by the new method of war, it served rather to inflame the haughty Iroquoise with the fiercest resentment against the French. They viewed the strangers who were settling in the country, as the most dangerous of all their enemies; and it became the first and most important of all objects to carry on a destructive, unceasing, and exterminating war with them.

The French were gradually extending their settlements upon the river St. Lawrence, and advancing further and further into the Indian country. In about ten years from the settlement of Quebec, they began the foundations of a fort and village at Trois Rivieres; and in 1640 they began a fortress and town at Montreal. Wherever they went, they assisted and encouraged the Algonquins; and they met with a steady and bitter enemy in the Iroquoise. The hostile Indian nations were an enemy, which the five nations wished to subdue; but the French were every where the chosen victims, and the objects of their inveterate hatred. To have taught a despised enemy how to conquer, to have introduced among them weapons every way superior to their own, were crimes which the fierce and savage temper of the haughtiest of all the Indian nations, could not forgive or endure. Thus by interfering in the

quarrels of the natives, the French had brought upon themselves a fierce and bloody war, with the most powerful of all the Indian nations; and produced an enmity, which appeared to be fixed, permanent, and obdurate; and such as the revenging spirit would endeavor to transmit from one generation to another.

In the destruction occasioned by these wars, in the coldness of the climate, in the immense quantity of labor necessary to effect the settlement of the country, and in the fewness and poverty of the Europeans, there were causes which rendered the French settlements extremely slow in their growth, and very precarious as to their duration. In addition to these difficulties, the five nations were now become accustomed to the effect of the European arms, had procured some of them, and regained their customary superiority over their ancient enemies. Surrounded with so many difficulties, the French were full of apprehensions that the time was not far distant, when they should be forced to abandon the country. Their Indian allies whom they had once taught to conquer, were now continually flying before their ancient enemies, whom they had been accustomed to dread. And the Iroquoise, feeling the animation of their regained superiority, were become more fierce and insolent than ever: and were loudly boasting that they would not only subdue their former enemies, but that they would soon force the French to leave their country, or put them all to death.

In this distress the court of France interfered to save the colony. A body of four hun-

dred good troops were sent from France, in the year 1662; and these, in two years more, were reinforced with the regiment of Carignan. With this force, the courage and hopes of the colony revived. M. Courcelles, the governor of Canada, supposed it would have a good effect, to carry the war into the country of their enemies: With this view in 1665 he sent out a large party against the Mohawks, one of the five nations. The expedition was undertaken in the winter: Through ignorance of the country, and the want of proper snow-shoes, the whole army were near perishing, when they accidentally fell in with Schenectady, a Dutch settlement on the Mohawk river. At Schenectady, the whole party were in the utmost danger of being destroyed by the Mohawks. What prevented, was the interposition of one Corlear, a Dutchman. And such an impression was made on the minds of the Indians, by the preservation which this man had afforded them, that they never forgot either his friendship, or his name. In all their treaties ever after, with the governors of Newyork, they always addressed them by the name of Corlear; an expression, in their view, significant of kindness, friendship, and confidence.

To retrieve the misfortunes of their winter expedition, in the spring of 1666, twenty light companies of foot, with all the militia of Canada, marched into the Mohawk country. Their march was attended with great expence, and fatigue; and continued for more than seven hundred miles, through an uncultivated and hostile country; but did not prove destructive of many of their enemies. At the approach of

the French, the Indians easily found places of safety, by retiring into the woods and swamps, where the French army could not follow them. Nothing was to be found but a few of their old sachems, who were super-annuated and weary of their lives, to gratify the fury of their enemies. The result however was favorable to both parties. The French, exhausted with the expence and fatigue of the campaign, and mortified by the want of success, did not wish to repeat the experiment of another expedition in the Indian country. The Indians were not pleased to see the war brought into the heart of their own country, nor could they yet oppose a large body of men armed and disciplined in the European manner, with much prospect of success. While both parties thus wished to put an end to hostilities, it would not be difficult to find reasons, ways, and means, to effect a reconciliation. In this disposition of their minds, they agreed to put an end to their wars ; and in the year 1667, concluded a treaty of peace, which continued for several years.

THIS was the first time that the French colony had ever enjoyed a compleat peace. Both the English and the French immediately embraced the opportunity to conciliate the affections, and to cultivate a trade among the natives ; and their interest lead them to urge it, with much zeal and address. At that time the trade with the natives was attended with much profit and advantage to all parties. The French in Canada, and the English at Albany and Schenectady, were as yet too remote from each other, and too few in numbers, to occasion any

considerable differences, or interference in the indian trade. And the Indians who lived between the two countries, availed themselves of the best markets and terms which they could find ; asserting in a wise and practical manner the doctrine of their independence, liberty, and equality with any of the European colonies. M. Courcelles however was not inactive during this season of peace. He easily foresaw that a peace with the savages, could be of but a short duration ; and he was extremely active in making preparations for the future defence of Canada. To prevent the irruptions of the Iroquoise into Canada, by the way of lake Champlain, in 1665 he built the forts of Chambly and Sorel ; both on the waters by which the communication is kept up between the lake, and the river St. Lawrence. In 1672, under pretence of a treaty of commerce, but with a design to effect an establishment, which should serve to restrain or subdue the Algonquins and Hurons, he obtained their leave to build a fort at Cadaraqui on lake Ontario. His successor, Count Frontenac, compleated the works the next spring ; and in 1679, M. de Salle inclosed with pallisadoes a spot of ground at Niagara, upon the strait which forms the communication between the lakes Ontario and Erie. Such was the origin of those fortresses, which have since occasioned so much expence of blood and treasure.

To this period, the wars in Canada had been confined to the French and the natives ; neither the Dutch or the English colonies had been engaged or concerned in them. Albany, and all

the northern settlements on Hudson's river, had been conducted by the Dutch. That people, inclined most of all to commerce, had so managed the Indians as to secure their friendship, derive much profit from their trade, and had always avoided any contests, or at least any open hostilities with them. In 1664, the whole country, called at that time New Netherlands, was surrendered to the crown of England. The country assumed the name of New York, and was governed by authority derived from the king of England. The Indians who lived between the settlements in New York and Canada, traded with either as best suited their convenience or interest. But from this intercourse they soon found that the English and French were far from being friends; that they were often at war with each other, and were always rivals in trade. With the spirit of sound policy they endeavored to avail themselves of this state of things, and to procure from the English a plentiful supply of that kind of arms and ammunition, which had been so successfully employed against them; and which could alone be applied to the greatest advantage in all the purposes of war and hunting. At the same time they resolved to preserve their own independence and importance, by trading with, or favoring either, as their own interest might dictate.

The English and the French colonies were both aware of the Indian temper and policy, and they were anxious to secure the Indian friendship and trade. It became of course their interest and endeavour to impart their own

maxims and prejudices, to the savages ; and to attach them as much as possible to their own nation, views, and party. As war had now ceased, this was the time to try what could be done by the councils, measures and arts of policy and insinuation. In this kind of manœuvering, or Indian courtship, the French had the most address and success. They not only sent their traders, but they sent their *Priests* to reside among the Indian tribes. The missionaries, educated in all the knowledge of Europe, studied the Indian temper and character ; and soon became well acquainted with their business. Their superior knowledge and address gave a direction to the councils and measures of the savages ; their acquaintance with medical and chirurgical subjects, qualified them to become their physicians and surgeons ; from their knowledge in the arts of life, the Indians were daily instructed in their rude attainments of fishing, agriculture, and making their cabins and weapons. To gain their affections, the fathers were distinguished by their attention to all the offices of humanity ; and to these were added the arts and influence of superstition, as a still more effectual means of gaining an ascendency over the savage mind. In this kind of management the Jesuits were most of all distinguished : And it does not appear that in any other order of clergy, so much knowledge of science, of business, of men, of human life and conduct, were ever so well united. Wherever they were sent they met with great success ; and when their manners and conduct were compared with the aukward and disgusting manners of

the English missionaries, the natives concluded that the Jesuits were the men who were the favorites of the Great Spirit above; and that he neither did or would work much by the other missionaries; especially by the formal, unaccommodating, metaphysical English Priests.

To this influence and instigation of the French priests, the English ascribed the commencement of hostilities which took place in the year 1683, on the back parts of Virginia and Maryland, by some of the five nations. This was the first time that any of those nations had ever been engaged against the English; and the prospect of a war with the Iroquoise, occasioned a most serious alarm to the country. If they had proved so formidable to the French, when they had only their bows, arrows, and clubs, it was concluded they must prove a most formidable enemy now, when they were generally armed with guns and hatchets, and knew how to use them. To guard against so dangerous an event, a general convention of the English colonies was held at Albany in the year 1684. Lord Howard, governor of Virginia, was present. Col. Dongan, governor of New York, and other influential characters attended. The convention succeeded in averting the storm. Howard, as President, made a treaty with the five nations, and entered into a plan of peace, trade, and alliance. This covenant was again confirmed in 1685, and has been renewed at several other times, since that period.

While the convention of the English colonies were engaged in this treaty with the five nations, an event took place, which tended to

give it success and efficacy. A messenger arrived from M. de Barre, governor of Canada, complaining that the Indians of the Seneca tribe had interrupted the French, in their trade with the more distant nations. The Senecas admitted the charge, but complained in their turn that the French had supplied some of the Indian tribes with whom they were at war, with arms and ammunition. And it became known that while De Barre was amusing the governor of New York, and the Iroquoise with these complaints, he was making large preparations for the entire destruction of the five nations. That nothing might be wanting to secure success to his measures, he had procured fresh troops from France; and a letter of instructions from the Duke of York, proprietor of the province, to Col. Dongan his governor, enjoining him not to oppose the French proceedings. Thus prepared, De Barre proceeded with an army of seventeen hundred men to lake Ontario; and sent to all the officers in the western posts, to collect all the Indians they could in the upper parts of the country, and rendezvous at Niagara.

The interference between the English and French colonies in the affairs of the Indians, though not avowed, had resolved itself into a steady opposition for several years; and was now assuming the aspect of a regular national policy. Dongan had been appointed governor of New York in the year 1682; and was the first English governor that saw the advantages which might arise from the Indian commerce and alliance. Aware of De Barre's measures and designs, he disregarded the orders which

he had received from the Duke of York ; announced to the Indians the designs and preparations of the French, and promised to afford them his assistance. Encouraged by these advances from the governor of New York, the five nations became more and more attached to the English, and prepared to make a vigorous defence.

At fort Frontenac, De Barre was detained six weeks in want of provisions and recruits. During this delay, a distressing sickness broke out in his camp, occasioned chiefly by the badness of his provisions. Incapable of carrying on war in an enemy's country with a diseased army, he now wished to adjust his operations to the purpose of concluding a treaty of peace. With this view he crossed lake Ontario, and came to a place, which on account of the distress of his army was called la Famine. Dongan received intelligence of all his movements, and labored to prevent the Indians from attending his proposed treaty. Two of the five nations, the Mohawks & Senecas were dissuaded, and refused to join. The other three, the Oneydoes, the Onondagoes, and the Cayugas, were influenced by the French missionaries ; but were unwilling to hear the French interpreter, unless it should be in the presence of the priests, to whom they had been much attached. Matters were at length partially adjusted, and the sachems of three of the tribes agreed to meet the French governor.--- Twodays after their arrival in the French camp, the council was opened. De Barre attended by a circle of French officers andIndians, addressed

a speech to Garrangula, an Onondago chief: In his speech he told the Indians that he did not come into their country for the purposes of war, that his aims were altogether pacific, and that he had no other wishes or designs, but to conclude with them a treaty of peace and perpetual friendship. Garrangula replied, that he had heard and considered his talk, and did not believe it; that he knew that he came into their country to destroy them all; that the great Spirit had put it out of his power, and that the Indians perfectly well knew the distresses of the French army; that notwithstanding all their boasting, they were the objects of compassion, rather than fear; but notwithstanding they would go so far as to make a treaty with them.* Mortified and provoked at the bold and sensible answer of a savage, whom he meant to have despised and destroyed, De Barre was obliged to conceal his resentment, and his fear. Nothing remained but to conclude the best treaty the savages would admit; and he retired to Montreal, mortified with the expence, the want of success, and the disappointment that had attended every part of the expedition; and not at all pleased with the terms or extent of the treaty which he had obtained.

M. de Barre returned to France; and the marquis De Nonville being appointed to succeed him in the government of Canada, arrived at Quebec in 1685. The marquis was colonel of a regiment of dragoons, of an active and enterprizing turn of mind; and was appointed

* Appendix No. VI.

for the purpose of removing the disasters and disgraces which came upon the colony in the time of its former governor. As soon as De Nonville was become acquainted with the affairs of the colony, he wrote to cardinal Richlieu, the French minister, urging a plan to enlarge and strengthen the works at Niagara, to exclude the English altogether from the lakes, to engross the whole of the furr trade, and to subdue the five nations; and immediately began his operations by throwing large supplies of troops and provisions into fort Frontenac.

The governor of New-York watched all his proceedings, and was very suspicious of his designs. He wrote to him that the five nations were his friends and allies, and that an attack upon them would be considered as a breach of the peace which subsisted between the English and the French crowns. He objected to his sending so powerful a force to fort Frontenac, and protested against his building a fort at Niagara; claiming that part of the country, as a part of the province of New-York. In his answer, De Nonville denied any intention of invading the five nations, but claimed the country at Niagara, as belonging to the French crown. Dongan placed no confidence in the declarations of the marquis: Aware of his preparations and designs, and of the importance of the Indian alliance and commerce, he exerted his influence to encourage and prepare the confederate tribes for war; and was constantly at work to make all the opposition in his power, short of actual hostilities, to the plans and proceedings of the French governor.

The five nations, at that time, had been fortunate in their victories over some of the Indian tribes with which they were at war; and with whom, the French had carried on a lucrative trade. To put an end to their triumphs, and to the obstruction which they gave to the French trade, De Nonville determined to carry war into their own country. To effect these purposes, in 1687, he assembled a body of two thousand French troops, and six hundred Indians at Montreal; and directed all the officers in the upper parts of the country to meet him at Niagara, with all the force that they could collect. While these preparations were taking place, hostilities were commenced. Two parties of the English, who were trading on the lakes were seized by the French, their effects were confiscated, and their persons imprisoned. A French officer with two or three hundred men, had surprized two villages of the confederates, whom they had invited to settle in their country: And so anxious were the French to prevent any of these Indians from escaping, and carrying the intelligence to their countrymen, that they were all conveyed to fort Frontenac. In the treatment of these captives, the French exceeded the barbarities of the savage tribes: All the captives, thirteen excepted, were burnt at the stake; and spent their last moments in singing with an heroic and undaunted spirit, the baseness and perfidy of the French. The rest, by the particular order of Lewis XIV. were put in irons, sent to Quebec, embarked from thence to France, and there put on board the gallies.

Hostilities being commenced, the interests of the French colony now required vigorous & animated exertions. De Nonville was not deficient in courage or enterprise. On the twenty third of June he embarked his whole army in canoes, and set out from fort Cadaraqui; one half proceeded on the north, and the other half marched on the south side of the Oneida lake. They met the same day, at the place appointed for their rendezvous, seven leagues from the chief village of the Senecas. The Indians were placed in the front, and rear; the main body, consisting of the regulars and militia, were kept together in a regular form. On the second day of their march the scouts arrived at the cornfields of the Senecas, and within pistol shot of five hundred of the warriors of that nation, who lay on their bellies undiscovered. The French concluded that the Senecas were all fled, and were in full march to overtake the old men, the women, and children. In this state of rapid movement, and high expectation, they arrived at the bottom of an hill, within one mile of the Seneca village. In a moment the war-shout and yell of the Senecas, was heard from every side; and the French army was attacked from every quarter. The whole army was struck with surprise and horror, and universal confusion ensued. The regulars and militia seized with the panic, could neither preserve their order or exert their force to any advantage. One battallion fired upon another, and all endeavored to fly into the woods. Expecting such a scene, the Senecas rushed on with impetuosity to increase the confusion; and would have compleated the

defeat of the whole army had it not been prevented by the superior prowess of the French Indians. Accustomed to such scenes, they understood the business, and the outrage of an Indian attack ; rallied their forces, rushed on to the attack, repulsed the Senecas, and saved the army of the French.

So dispirited was the French general by this unexpected and alarming onset, that he could not be pursuaded to make any further attempts that day, or even to pursue the retreating enemy. While he was collecting his spirits and his troops, the Senecas burnt their town and marched off with safety into the woods ; leaving nothing but two of their oldest men, for the French to kill and torture. All the exploits that remained for De Nonville. was to burn the cornfields belonging to the Indian village, and make captives of the two old men. Having compleated this business he marched his army back to lake Ontario ; and erected a fort on the strait at Niagara. To preserve this fort, he left a garrison of one hundred men; all of which, except seven or eight who escaped, being closely blocked up by the Senecas, perished in a few months by famine.

Receiving intelligence of the event of De Nonville's expedition, the governor of New-York concerted measures to avail himself of the power and friendship of the Indians. For this purpose he repaired to Albany, and had a conference with the five nations in the month of August. His speech on that occasion was well adapted to secure their confidence and dependance. He rejoiced, he told them, that they

had not suffered a greater loss by the French, whose designs undoubtedly were to destroy them all; and that he would provide them with such necessaries as they wanted. He advised them not to destroy their captives, but to keep them as prisoners, for the redemption of their own countrymen whom the French had taken; To keep up a correspondence with him as to all their designs and measures; to send away the French priests from their country; to point out a place on Lake Ontario, where he might build a fort to supply them with stores and provisions; and above all not to pretend to make any treaties with the French, but by his advice and consent.* These measures and speeches of Dongan served to encourage and animate the Indians. Soon after a considerable party of them beset the French fort at Chambly, burned several of the houses, and returned to Albany with a considerable number of captives. About the same time forty of the Onondagoes surprised some of the French soldiers at fort Frontinac, whom they confined and reserved for the redemption of their countrymen, who had been sent to the gallies. Great pains were taken to recover these Frenchmen out of the hands of the Indians. The French priests interposed to persuade the savages to treat them with kindness, and return them to their countrymen; and a message was sent to the governor of New York, to engage his influence in the affair. Dongan informed the governor of Canada that no peace could be made with the five nations,

* Smith's Hist. New-York, p. 69.

unless the Indians which had been sent to the gallies were returned, the forts at Frontenac and Niagara demolished, and satisfaction given for the damages which had been done to the Senecas.

In this situation of the French affairs, Dongan hoped to compleat his favorite plan of policy ; to compel both the French and the Indians to apply to him, in all their affairs of peace and war. He had nearly effected his plan with the Indians ; but the French governors were jealous of his designs, and wished to treat with the Indians, as a nation independent of the English crown or colonies. It was however in Dongan's power from the situation of the French colony at that time, to force it into such kind of concessions ; and he was steadily following measures to effect the purpose, when he was ordered by James II. one of the most obstinate and infatuated of all the English kings, to give up the point to the governor of Canada ; and to use his influence with the five nations, to make peace with the French.

Deprived of the assistance and councils of Dongan, the five nations began to hearken to the French invitations, and a general meeting of the hostile parties was proposed at Montreal. Twelve hundred Indians of the five nations attended at this conference, and insisted with much earnestness, on the terms which Dongan had recommended. De Nonville declared himself ready to put an end to the war, if the Mohawks and Senecas as well as the other tribes would agree that the French should not be hindered in supplying fort Frontenac with provisions. Ac-

cording to the French accounts the conditions were acceded to, and a treaty was agreed upon by both parties.

It proved however of no avail. The policy of one Indian was sufficient to destroy every idea of confidence between the parties, and to inflame both still more with the spirit of bitterness and revenge. Among the tribes which lived on the shore of the western lakes, there was one called by the name of the Dinondodies; a party, or appendage to the Hurons. This tribe had found it profitable to trade with the English, at Michilimacinac. On that account it was suspected by the French, as being inclined to withdraw from their alliance; but it was still at war with the confederates. Adario, called by the French Le Rat, was their chief. With a policy perfectly similar to that of Europe, he wished to derive advantages to his own tribe, from the follies, jealousies, and wars of the belligerent powers. His wish and view was to prevent the peace between the French and the five nations. If he could effect this purpose, it would secure his own tribe from the attacks of the French, or Iroquoise; render their friendship of much importance to both; and at the same time secure his own influence, popularity, and power with his own tribe. To effect these purposes, he put himself at the head of one hundred men, and marched to intercept the ambassadors of the five nations, who were going to compleat the business of peace with the French governor. At one of the falls of Cadaraqui river he met the Iroquoise ambassadors; killed some, took others prisoners, and informed their

that it was the French governor that had given him intelligence that fifty warriors of the five nations were coming that way.

To be betrayed by the person with whom they had agreed upon a treaty, and were now going to confirm it; and at the same time to be delivered into the hands of a party with whom they were at war, exceeded all the conceptions the savages had been able to form of duplicity, perfidy, and baseness; and in their rage against De Nonville, they declared to Adario the nature of their business, and the design of their journey. Adario instantly put on all the appearances of anger, shame, and distress, at being made the executioner of De Nonville's baseness and treachery. He flew to the principal of the ambassadors, cut his bands, and set him at liberty. "Go, says he, my brother, return to your nation, and tell them it was the French who led me to commit so base and vile an action, as to make an attack upon the messengers of peace. Though our nations are at war, you are at liberty; and I shall never be at rest, till you have revenged upon the French, the base and perfidious conduct into which they have betrayed me." By these arts, similar to those of more polished nations, Adario secured peace for his own tribe, and left the contending powers more exasperated against each other than they had ever been before.

The intelligence soon reached the five nations that their ambassadors had been intercepted, and assaulted by the contrivance of the French governor; and they did not doubt of the truth of the information. The whole nation

vowed revenge, and agreed to make retaliation. Twelve hundred of their warriors, animated with the fiercest feelings of the savage heart, set out on a march to Montreal. The inhabitants, unacquainted with the attack upon the ambassadors, and believing that peace was made with the five nations, were in perfect tranquility, without any preparation for, or any apprehension of danger. While the city was thus serene, and without fear, the storm of vengeance gathered and burst. On the 26th of July 1688, the Indian warriors landed on the south side of the island of Montreal, and immediately began their assault upon every part of the city. Nothing could exceed the destruction which the savages carried with them. They burnt the houses, sacked the plantations, and put to death every man, woman and child, which they could find without the fortifications. One thousand of the French were slain in this massacre ; and twenty six were carried into captivity, and burnt at the stake. And so great was the consternation of the French, that the Indians lost but three of their number, while they carried destruction and carnage through the whole island. Not satisfied with the calamities they had already occasioned, in October the Indians made another descent upon the island ; again destroyed the lower part of it, killed several of the inhabitants, and took many prisoners.

At no time had Canada ever before, met with so heavy a misfortune. The very news carried defeat as well as alarm along with it. On receiving the tidings, the garrison at Lake Ontario set fire to two barks which they had

just compleated, and abandoned the fort ; leaving a match to twenty eight barrels of powder, disposed with a design to blow up the works. The troops went down the river with such rapidity and fear, that one of their battoes, with her crew, was swallowed up in one of the falls. The confederates were in all the animation and insolence of victory : They seized the fort at Cadaraqui, with all the powder and stores ; they sent their scouts every where, to invade the frontiers, and break up the settlements in Canada. The French were involved in every kind of difficulty and danger ; their borders were invested, inroads made on their oldest plantations, their new settlements breaking up ; it became difficult and dangerous to cultivate the lands, or to gather in the harvest : And to all the miseries and calamities of war, were now added the distresses of famine, to compleat their catalogue of woes. Their Indian friends and allies forsook them, and made peace with the Iroquoise and English. Two only of the Indian tribes adhered to the French in their calamity ; and these were too much dispirited, to attempt any thing in their favor ; and it was only in the cities of Quebec, Trois Rivieres and Montreal, that the inhabitants of the colony found any safety. The savages knew not how to approach, or to carry any fortified works ; and the French availed themselves of this circumstance, till the affairs of the colony took a different turn.

While the Iroquoise had been carrying on these measures against the French, a war had broke out between the Abenaquies and the

English colonies at the eastward, which bore a threatening aspect. It was understood by the English, that there was not any alliance between the Iroquoise and the eastern Indians; but rather, some remains of former hostilities and jealousies: And it was hoped that the fierceness of the savage temper and passions, might be managed so as to draw them into a war with the eastern tribes. To effect this purpose, commissioners from the colonies of Massachusetts, Plymouth and Connecticut, had a conference with the five nations at Albany, in September 1689. When urged to engage in the eastern war, the Indians replied that it was not their custom to go to war with any people, from whom they had not received any injury or insult; that they were engaged already in a war with the French, the common enemy; and that they believed the best policy would be for the English colonies first to assist them in subduing the enemy, that was always ready to make war against them both. The speech which their orator made on this occasion, is an amusing specimen of the Indian genius, policy and eloquence. The English commissioners learnt from it, but with surprise, that the Indians well understood their own interest and affairs; and were as much disposed and qualified to avail themselves of policy in the management of war, as the Europeans who had got possession of their country.

CHAPTER X.

WAR. *The first wars between the English and French colonies, assisted by the Indians; from the year* 1689 *to* 1750. *Effect of the revolution in favor of William and Mary. Plans of the French. Destruction in New Hampshire and Schenectady. First attempt to reduce Canada. Sentiments of the Indians on that occasion. French expedition against the Mohawks. Destruction of Deerfield. Second expedition against Canada. Proceedings of Schuyler. Third attempt to reduce Canada. Proceedings at Oswego and Lake Ontario. Buildings and settlement at fort St. Frederick at Crown Point. Capture of fort Massachusetts. Proposed expedition against Crown Point. Attempt upon the fort at Charlestown.*

THE wars which had hitherto taken place in the northern parts of the country, had been chiefly between the natives and the European colonies. The English and the French colonies had made it their practice to assist the Indians with arms, ammunition, cloathing and provisions, when they were going to war, either against each other, or against the opposite colony; but neither of them had as yet adopted the custom, of joining their own troops to the Indians, or sending out parties to aid or assist them in their expeditions.

Col. Dongan, who was governor of Newyork under James II. was expressly commanded by his sovereign, to avoid giving the Indians any

assistance, or the French any molestation. A dupe to his bigotry and to his priests, it seemed to be the great object of the English king, to have the French missionaries succeed in converting the American Indians to the faith and ceremonies of the church of Rome ; and that every political movement in the province of Newyork might be directed to favor that event. Dongan was an avowed roman catholic, but had more understanding than to sacrifice the political interests of his colony, to the dangerous design of making the Indians a new sect of believers in the catholic priests. He foresaw the political consequence and effect, avoided the civil politics of his master, opposed the views and measures of the governor of Canada, and gave much assistance to the Indians in their opposition to the French ; and the governor of Canada was full of his complaints, that all his measures were opposed and defeated by the governor of Newyork. But this strong and mutual jealousy and opposition between the governors of Newyork and Canada, was much restrained, and kept from any open and avowed hostilities, by the friendship and good understanding, which at that time prevailed, between the kings of England and France.

Happily for the English nation, the folly, bigotry, and arbitrary measures of James II. were carried to such an excess, as to alarm all orders and degrees of men. In the event, they prepared the mind of the nation for a revolution ; which terminated in the abdication of James, and in the elevation of William and Mary to the English throne. In his perplexity and dis-

tress, James fled into France for protection. Lewis XIV. avowed his cause, and afforded him assistance in his endeavors to recover his throne. These events, according to all the European customs and maxims, could not fail of producing hostility and war between England and France.

It was the fate of the colonies at that time, not to partake much in the prosperities, but to be involved in all the misfortunes and quarrels of their parent states. No sooner had England and France plunged themselves into all the calamities and distresses of war, by the vices and follies of one of their worthless kings, than all the people in their colonies must share the same fate, and be involved in the same pursuits and sufferings. And the time was now come in which both the French and the English colonies were destined, not only to carry on a war with nations of barbarous natives; but to become parties and sufferers in all the quarrels of more cautious, but equally capricious European sovereigns.

M. De Callieres, seems at that time to have had the management of their military affairs, in Canada. Of an active disposition, and sound judgment, he concluded that the surest way to subdue the five nations would be, to effect the conquest of the province of Newyork. The plan that he proposed was to attack the city of Newyork by sea, and that a large body of Canadians and Indians should march by the way of Sorel and lake Champlain, to take Albany. In pursuance of this plan he went to France in 1688, and presented a memorial to the French

king on the subject. The force which he requested for these purposes, was thirteen hundred regulars, and three hundred Canadians. Albany was said to be fortified only by an inclosure of stockadoes, and a little fort, with only four bastions; and that it contained but one hundred and fifty soldiers, and three hundred inhabitants. The capital of the province, Newyork, was described as defended only by a stone fort, with four bastions; and containing four hundred inhabitants, divided into eight companies. The Court of France acceded to the proposals and solicitations of M. De Calliéres. A French fleet and troops were sent to Chebucta, in September 1689, to proceed to Newyork, as soon as the troops should have marched towards Albany. The Count De Frontenac proceeded to Quebec, to put himself at the head of the Canadians and Indians, in their march to Albany. On his arrival at Quebec, he found the affairs of Canada in great confusion. He learnt with astonishment that the Iroquoise had plundered and burnt the city of Montreal, and killed most of the inhabitants; that the frontier settlements were broken up, and the inhabitants of Canada in such a state of weakness and poverty, that they could not undertake any expedition against Albany. It was in vain for Frontenac to attempt a conquest of Newyork, while the French colony was in such a situation; and he was obliged to give up an expedition, on which his heart had been much engaged.* Thus early did it occur to the

* Charlevoix. Smith's Hist. Newyork.

minds of military men, that whether Newyork or Canada were to be conquered, the passage of the army must be through lake Champlain.

MORTIFIED by the failure of the proposed expedition against Newyork, and alarmed by the distressed state of Canada, the count found it to be absolutely necessary to revive the hopes of the Canadians and Indians, by some attempt against the English colonies. With this view he projected two incursions; one against the eastern frontiers of Massachusetts and New-Hampshire, and the other against the northerly settlements in the province of Newyork. The former was put under the command of Sieur Hertel, who set out from Trois Rivieres, and succeeded in the destruction of the fort at Salmon Falls in New-Hampshire, on March 18th, 1690. Thirty of the English were killed, and fifty four, chiefly women and children, were carried into captivity.*

THE other party designed against New-York, was put under the direction of D'Aillebout, assisted by De Montel, and Le Moyn. Under their command, a detachment of about two hundred Frenchmen, and fifty Indians who were well acquainted with the country, set out from Montreal, in the beginning of January, and proceeded by the way of lake Champlain. By the advice of the Indians, instead of proceeding to Albany, they directed their march towards Schenectady, a village about seventeen miles northwest of Albany. After a march of twenty two days, they arrived in the vicinity of the

* Belknap's Hist. New-Hampshire, Vol. I. p. 250.

village ; but were reduced to such wants and distress, that they apprehended they must surrender themselves prisoners of war, as the only alternative to prevent perishing by hunger and cold. To ascertain whether there was any prospect of success, they had sent forward their scouts to gain intelligence. The spies were one or two days in the village, without being discovered or suspected. On their return to the French army, they informed the commander that the village was in a state of the greatest inattention ; that the troops were few, and under no discipline ; that the gates were not shut even in the night ; that no preparation of any kind was made for war ; nor did the inhabitants appear to be in any degree apprehensive of danger. Encouraged by this intelligence, the French officers determined to move forward, and make a vigorous assault upon the place. On February the eighth, 1690, at eleven o'clock at night, they entered the city by the gates, which they found open ; and that every house might be invested at the same time, they divided themselves into small parties of six or seven to a division. Never was there a place, that was more compleatly surprized. The inhabitants were in their beds without fear, and without any suspicion of danger ; the noise and violence of the onset, awakened them from their slumbers ; but before they had risen from their beds, the French and Indians had entered their houses, and began the work of destruction and slaughter. Col. Schuyler, commander of the military force in that part of Newyork, has given the most accurate account of this tragedy,

"No tongue," says he, "can express the cruelties that were committed. The whole village was instantly in a blaze. Women with child ripped open, and their infants cast into the flames, or dashed against the posts of the doors. Sixty persons perished in the massacre, and twenty seven were carried into captivity. The rest fled naked towards Albany, through a deep snow, which fell that very night in a terrible storm; and twenty five of these fugitives, lost their limbs in the flight, through the severity of the frost."*

The news of this awful tragedy reached Albany, about break of day. An universal dread and consternation seized the inhabitants; the enemy were reported to be fourteen hundred in number; and many of the citizens of Albany entertained the idea, that the best method was to destroy the city, and abandon that part of the country. But Schuyler and others roused and rallied the inhabitants. A party of horse was soon sent off to Schenectady, but they were not strong enough to venture a battle. The enemy kept possession of the place till the next day at noon; and having plundered the whole village, they went off with forty of the best horses loaded with the spoil; the rest, with all the cattle they could find, lay slaughtered in the streets.

The policy of the French was apparent in the midst of these horrid transactions. They not only spared the Mohawks whom they found in the place, but several other persons were released at the request of these Indians, with whom

* Smith's Hist. Newyork, p. 82.

they wished to be at peace. Captain Glen was a citizen of note in the village: His wife, in the time of Col. Dongan, had shewn many civilities to some French captives. The enemy offered no violence to this man, and released several women and children at his request; declaring they had strict orders not to do him any injury on account of the former conduct of his wife. The people of Schenectady had been informed of the design of the enemy, and that an expedition was undertaken against that part of the country; but they judged it to be impossible for any body of men, in the severest season of the year, to march several hundred miles, through the deepest snows, with their provisions on their backs. The civil government of the province, at that time, was incapable of affording them any intelligence, or protection; universal weakness and disorder were spread through the whole province, by a revolution at at New York, under the direction of a captain Lester.

The success that attended these expeditions, was greatly favorable to the views of Frontenac, and served to revive the spirits of the French colony: At the same time they occasioned an alarm in every part of the English plantations; and it was apparent, that unless they could be checked, New England and New York would receive much greater injuries and insults. It was proposed that there should be a meeting of commissioners from all the New England colonies, and from the province of New York, to consult, and agree upon measures for the common defence and safety. Commissioners for

that purpose assembled at the city of New York, May 1, 1690 ; it was their unanimous opinion that there would be no permanent peace in the English colonies, till the French in Canada were subdued ; and that the only effectual measures would be, to engage upon an expedition for that purpose. To effect the conquest of Canada, they agreed upon this plan of operations ; that eight or nine hundred Englishmen, with five or six hundred Indians, should proceed by way of lake Champlain, and make an assault upon Montreal ; while a fleet and army of eighteen hundred or two thousand men, should go up the river St. Lawrence, and make an attack upon Quebec, at the same time. By thus penetrating into the heart of the country, and carrying the operations and ravages of war to their two capital cities, it was supposed that the forces of the enemy would be so divided, and their councils so perplexed, as to afford a fair prospect of success to the English armaments ; and might probably terminate in the conquest, or at least in preventing any further insults from Canada.

A small vessel had been sent express to England in the beginning of April, with a representation of the exposed state of the English colonies, and the necessity of reducing Canada ; earnestly requesting a supply of arms and ammunition ; and that a number of the kings frigates might be sent to make the attack by sea, while the colony forces should invade the country by land. The English nation, involved in a war with France, was in no situation at that time to afford any assistance to the expedition ;

and having waited till August in hopes of stores and aid from England, the colonies determined to proceed. Massachusetts agreed to fit out the force that was to proceed to Quebec; New York and Connecticut were to furnish the army that was to advance against Montreal.

The Connecticut and New York troops were put under the command of John Winthrop, Esq. of Connecticut; who was appointed major general and commander in chief. Early in the month of August he arrived with the troops under his command, near the falls at the head of Wood Creek. This was the place appointed for the rendezvous of the Indians of the five nations. But instead of finding a numerous force as he expected, there were not more than seventy warriors of the Mohawks and Oneydoes. A messenger was sent to the other nations to persuade them to send on their warriors, but they did not come forward to join the army. When the general had advanced about one hundred miles, he found that there were not batteaux or canoes provided, sufficient to transport one half of the English army; and that the commissary had not made preparation to supply the army with provisions. The Indians told them it was too late in the year to make canoes; and that it would be best for them not to attempt Montreal, but to direct their attacks against Chambly, and the French settlements on this side of the river St. Lawrence. Discouraged with the difficulties and prospects before him, Winthrop called a council of war; in which it was determined that the army must return to Albany for subsistence, and to send on about an hundred

and forty of their active young men, English and Indians, to make a diversion in favor of the fleet.

About the same time, August the ninth, that Winthrop set out for Albany, the fleet sailed from Boston, for Quebec. It consisted of between thirty and forty vessels; the largest of forty four guns, and the whole number of men about two thousand. Sir William Phips, governor of Massachusetts, had the chief command. The fleet had a long passage from Boston, and did not arrive before Quebec till the fifth of October. From the lateness of the season, and the retreat of Winthrop's army, Sir William Phips could have had but little prospect of success. Count Frontenac had advanced with all his forces to Montreal, to defend that part of the country against the army, which was advancing by way of lake Champlain. No sooner had he received advice by his scouts that the English army had retired to Albany, than he set off with the greatest dispatch for Quebec, and arrived in the city before the English fleet had come to anchor. The baron Le Hontan, a French officer who was then in Quebec, gives this account of the proceedings; that count Frontenac was at Montreal when he heard that the English fleet was in the river; and had the English made their descent before his arrival at Quebec, or two days after, they would have carried the place without any contest; as there were not two hundred French in the city, and it was open and exposed in every part; but that they lost the opportunity, by spending three days in consultation, before they came to any determination how to act.

On the eighth of October, the troops were landed, amounting to between twelve and thirteen hundred men, and advanced towards the town. The next day the ships were drawn up before it, and cannonaded with all their force. They did but little damage to the enemy, but were much shattered by the cannon from their batteries. On the eleventh, the troops were re-embarked. They had advanced, and maintained their ground with spirit, but they received such an account of the strength of the French from a deserter, as discouraged them from any further attempt. Nor was there any prospect that they could succeed, when they had to oppose the whole force of Canada, under so able a commander as Frontenac. In a few days tempestuous weather came on, which drove some of the vessels from anchor, and scattered the whole fleet; and they made the best of their way to Boston, where Sir William Phips arrived on the nineteenth of November.*

Such was the fate of the first attempt of our ancestors for the conquest of Canada. From the ill success which attended it, it has been customary for the English and French writers to speak of it in the language of derision and contempt. With the multitude, success generally passes for wisdom, and misfortune is esteemed to be folly. The plan of the expedition was the same, that was twice afterwards adopted by the statesmen and generals of the British nation. Its success depended on the joint operation of the forces under the command of Winthrop and

* Hutchinson's Hist. of Massachusetts, Vol. I. p. 400. Trumbull's Hist. of Connecticut, p. 402.

Phips. Unfortunately the colonies wasted the summer in a fruitless expectation of succours from England. When Winthrop proceeded to the lake, the Indians saw that it was too late to make the necessary preparations to embark his army; and they would not venture to join him in any considerable numbers. Unable to proceed he was obliged to return to Albany. This retreat proved fatal to the attempts at Quebec. When opposed by the whole force of Canada, Phips could not succeed either in taking, or in holding the capital of the country.

The fruitless attempts of the English colonies to subdue Canada, left very unfavorable impressions on the minds of the Indians of the five nations. They saw a precarious dependency of the colonies on a distant and unknown nation, which they could not comprehend; a waste of time, which appeared to them to be unnecessary; and a want of that unanimity, secrecy, energy, and perseverance, which were generally to be found in their own councils, and in those of the French; of course they became apprehensive that their new allies had not the necessary information, or power, to subdue their enemies. Major Schuyler, of Albany, was acquainted with the Indian character, and discerned the depression of their minds. To keep alive, and to animate their enmity and hostility against the French, in the summer of the year 1691, he put himself at the head of a party of Mohawks; and passing through lake Champlain, made a vigorous irruption upon the French settlements on the river Sorel. He was opposed by M. De Callieres, the governor of

Montreal, who with an army of eight hundred men, was encamped at La Prairie. Several engagements took place between the hostile parties, and in these encounters Schuyler slew about three hundred of the enemy; a number which exceeded that of his own force. While the French kept their troops together in the European form, Schuyler adopted the Indian method of placing his men under cover of trees and swamps; and derived great advantage, from this method of carrying on his assaults.*

Amidst these invasions of Canada, Frontenac, though far advanced in age, being above seventy, preserved his vigor and activity; and was perpetually planning some enterprize for the benefit of the colony, and animating every body around him. Having failed in his attempts to make peace with the five nations, he was now meditating a blow upon the Mohawks. The force he collected for this purpose, amounted to six or seven hundred French and Indians. Well supplied with every thing necessary for a winter campaign, the army set out from Montreal, January 15th, 1695, and marched by the way of lake Champlain. Persevering through incredible hardships, they passed by Schenectady on February the sixth, and that night captured five men and some women and children, at the first castle of the Mohawks. They met with the same success at the second castle; the Indians being in perfect security, and many of them gone to Schenectady. At the third, they found about forty Indians engaged in a

* Smith's Hist. New York, p. 92.

war dance, and prepared to go out the next day upon some warlike expedition. Entering the mohawk castle, a warm conflict ensued, in which the French lost thirty of their men; but they carried the Indian fortress, and captured nearly three hundred of the Mohawks, but mostly women and children.

The misfortunes of the Mohawks were no sooner known at Albany, than Schuyler put himself at the head of two hundred volunteers, and marched in pursuit of the enemy. On the fifteenth of February he was joined by three hundred Indians, ill armed, and many of them boys. With this force he fell in with the enemy, who had made some attempts to fortify their camp. Having still the advantage in the number and discipline of their troops, the enemy made three successive sallies upon Schuyler, but in every one met with a repulse; and Schuyler firmly maintained his ground, every moment expecting a reinforcement and provisions from Albany. Fearful of that event, the French on the eighteenth, embraced the opportunity of a heavy snow storm, and marched off for Canada. The next day eighty regular troops arrived, with provisions from Albany. Schuyler resumed the pursuit, and it was by means of a floating cake of ice, that the French army were able to escape over the north branch of Hudson's river. But so pressed were they by Schuyler's pursuit, that they suffered most of their prisoners to escape. In these engagements Schuyler lost eight of his men, and fourteen wounded; the loss of the French was eighty killed and thirty wounded. Both parties

suffered severely by the severity of the weather, and the want of provisions. The Mohawks found about thirty of the French, which had been slain ; such was their hunger and rage, that they roasted their bodies, and eat them for provisions. The French, in their turn, were so reduced that they eat up their shoes before they arrived in Canada.*

For several years after this period, the war was continued with much activity and animosity. Scouting and ravaging parties of Indians were frequently making inroads upon the English and French settlements, many were slain on both sides, and much injury was done to the advanced settlements of both countries. Frontenac was also much engaged in erecting forts, and making excursions in the Indian country, to restrain and bridle the five nations. But as these expeditions were at a distance from lake Champlain, they do not come within the proposed limits of this narration. Nor did the war cease on the frontiers of Canada, New York, or New England, till the peace of Ryswick, September 20, 1697. The treaty between the two crowns of England and France, by putting an end to the European wars, restored tranquility to the Indians, and to the American provinces.

The tranquility of the provinces, however was to be of but a short duration. Upon the death of James II. the king of France did not admit the prince who was in possession of the English throne, and acknowledged by the English nation, to be their rightful sovereign ; and

* Smith's Hist. of New York, p. 95.

proclaimed another person to be king of England. This affront could not fail to engage those mighty kingdoms in war, and to involve their American colonies in all its effects and sufferings. On May 4, 1702, war was proclaimed between England and France ; a signal to the people that mutual hatred, hostility, and destruction were to begin. At first the war did not prove distressing to New York. Count Frontenac, the able and vigilant governor of Canada, died in the year 1698 ; and his successor, M. De Callieres, had succeeded in compleating a treaty of peace and neutrality with the five nations. This agreement was allowed to be in force by the governors of New York and Canada, notwithstanding the war between the two crowns. And instead of being harrassed by the inroads of the French and Indians, the province of New York continued for some time in a state of great tranquility, and carried on a lucrative trade with the French and Indians in Canada, at the very time they were carrying destruction into the other English colonies.

While New York was thus enjoying peace, the French and Indians were carrying uncommon destruction and calamities into the eastern provinces. In August 1703, a body of French and Indians, five hundred in number, divided themselves into several small parties, and assaulted all the settlements from Casco bay to Wells. They killed, and captured, one hundred and thirty of the English ; burning and destroying the houses and settlements. The whole eastern country was in terror, and con-

fusion ; alarms were every where taking place ; and the whole frontier from Deerfield on Connecticut river, to Casco bay on the sea coast, was kept in one continual terror by small parties of the enemy.*

The neutrality which New York maintained with the French and Indians, and the supplies which they afforded them in their descents upon the eastern colonies, was extremely blamed and censured in all the New England colonies. It was however attended with one good effect ; the Indians, in their trading visits to Albany, frequently gave accounts of the expeditions the French were preparing against the eastern colonies : and Col. Schuyler never failed to give the most faithful and early intelligence of such designs. Deriving his information from this source, lord Cornbury, governor of New York, advised Mr. Dudley, governor of Massachusetts, so early as the month of May, that the French and Indians intended to make a descent upon Deerfield. The design not being carried into execution in the course of the summer, the intelligence was not enough regarded. But the next winter, 1704, M. Vaudrieul, governor of Canada, resumed the project with much attention.

Deerfield, at that time, was the most northerly settlement on Connecticut river, a few families at Northfield excepted. Against this place M. Vaudrieul sent out a party of about three hundred French and Indians. They were put under the command of Hertel de Rouville,

* Belknap's Hist. New Hampshire, Vol. I. p. 331—332.

assisted by four of his brothers ; all of which had been trained up to the business by their father, who had been a famous partizan in their former wars. The route they took was by the way of lake Champlain, till they came to the French river, now called Onion river. Advancing up that stream, they passed over to Connecticut river, and travelled on the ice till they came near to Deerfield. Mr. Williams, their minister, had been much apprehensive of danger, and attempted to make the same impression on the minds of his people, but not with sufficient success ; but upon his application the government of the province had sent a guard of twenty soldiers for their assistance. The fortifications were some slight works thrown round two or three garrison houses, but were nearly covered in some places by drifts of snow. To this place, Rouville with his party, approached on February the twenty ninth. Hovering round the place, he sent out his spies for intelligence. The watch kept the streets of the town till about two hours before day, and then unfortunately all of them went to sleep. Perceiving all to be quiet, the enemy embraced the opportunity and rushed on to the attack. The snow was so high, that they had no difficulty in jumping over the walls of the fortification ; and immediately separated into small parties, to appear before every house at the same time. The place was compleatly surprized, and the enemy were entering the houses at the moment the inhabitants had the first suspicion of their approach. The whole village was carried in a few hours, and with very little resistance ; one of the garrison

houses only, being able to hold out against the enemy.

HAVING carried the place, slain forty seven of the inhabitants, captured the rest, and plundered the village, the enemy set it on fire; and an hour after sun rise on the same day, retreated in great haste. A small party of the English pursued them, and a skirmish ensued the same day, in which a few were lost on both sides. The enemy however compleatly succeeded in their enterprize, and returned to Canada on the same route, carrying with them one hundred and twelve of the inhabitants of Deerfield as prisoners of war. They were twenty five days on their march from Deerfield to Chambly; and like their masters, the savages, depended on hunting for their support. On their arrival in Canada they found much humanity and kindness from the French, and from M. Vaudrieul their governor; but complained much of the intolerance, bigotry, and duplicity of the priests.*

* WITH a profound respect to the memory of his worthy grand sire, the writer of these sheets cannot omit this opportunity of mentioning with pleasure his descent, as being the grand son of the Rev. John Williams, at that time the minister of Deerfield. This worthy man was born at Roxbury, in Massachusetts, in the year 1664. He was educated at Harvard College, and took his degree in 1683, and was the first settled minister at Deerfield. At that time, when the people were forming a new plantation it was customary to engage some respectable preacher of the gospel, to begin the settlement with them. Having the best education which the country could give, and being men of sober morals, the clergy had of consequence great influence in the civil, as well as in the religious concerns of the country: And the people generally found in their minister, not a useless dupe to metaphysical chimeras, but an able, a moral, and judicious friend; capable of directing their devotions, and assisting them in the difficulties and hardships, inseparable from their situation, when first commencing their settlement.

SUCH a one was the minister of Deerfield. Learned, moral, judicious, and of exemplary piety and gravity, he was greatly amiable, and active. In 1697, the village was attacked by a party of the enemy; the minister put himself at the head of his people; and with much prudence and

For several years after this period, a continued scene of devastation and destruction was kept up. The New-England colonies formed several expeditions against the French and Indians, in the eastern parts; and they, in their turn, were constantly making inroads on the exposed settlements of the English. Success often attended both parties; but the exertions of the English colonies proved extremely distressing to the inhabitants, as well as their losses. They were too few in nnmber, to bear the loss of men; and so low in their circumstances that

bravery they repulsed the enemy. On the breaking out of a new war, his anxiety and his activity increased: Upon his application, the government sent a guard of 20 soldiers to Deerfield; and during the whole winter he was incessant in his religious and civil conduct, to impress the minds of the people with a sense of their danger, and with a spirit of vigilance and activity. When the enemy broke in upon the town, they went to his house in the beginning of the onset; and about twenty of the Indians entered his house, as he was rising from his bed. Such was the firmness of his mind, that he took a pistol from the head of his bed, and presented it to the breast of the first Indian that came up. The pistol missed fire, and the Indians immediately disarmed and bound him. Two of his children, and a negro woman, were butchered, and his house pillaged. The Indians then suffered him, his wife, and the five surviving children to put on their cloaths, and prepare for their dreadful march.

When the sun was about an hour high, they led him out with his wife and children, and set fire to his house and barn. On the second day of the journey, his wife scarcely recovered from lying in, informed him that her strength began to fail. He knew the consequence; her savage master clove her head, and put an end to her life, by one stroke of his hatchet. Mr. Williams himself was carried to Canada with his children. At times, they all received favors from their Indian masters, and many acts of kindness from the French. During his captivity, by his learning, firmness, steadiness, and resolution, he proved of much service in supporting the spirits of his people, and preserving their attachment to the religion and government of their country. In 1706 he was exchanged, and sent to Boston, with a number of the English captives. Some of the best parishes near Boston, urged him to settle with them, as a minister. Declining every offer and prospect of this nature, in conformity to a vow made in his captivity, he returned to Deerfield; collected his flock, and began again with them the labors and hardships of another settlement: and remained their worthy and faithful minister till the year 1728; dying in peace, beloved by his people, and lamented by his country. The account that he wrote of his captivity, is in the plain serious style of that day; an instructive and entertaining relation, and has gone through seven editions.—"The memorial of virtue is immortal. It is known with God and with men. When it is present, men take example at it; and when it is gone, they desire it."

they could scarcely procure the necessaries of life, much less bear the expences of war. The whole country was in a state of constant terror and alarm; and in the frontier towns, the women and children found no refuge, but in the garrisons. The men went armed to their work, centinels were posted in the fields, attacks were made almost every week, reports of French and Indian armies and incursions were incessant, and every month some of the inhabitants were cut off by the enemy. And what was more humiliating, a favorite but ill managed expedition against the French at Port Royal in Acadia, in 1707, had failed.*

To put an end to this horrid scene of depredation and slaughter, there was no way but to carry the war to the head quarters of the enemy, and make another attempt for the conquest of Canada. Solicitations for this purpose had been made to the court of England by the assembly of Massachusetts; by Francis Nicholson, who had been lieutenant governor of New York and Virginia; and by captain Samuel Vetch, who had been several years before at Quebec, for the redemption of prisoners, and was well acquainted with the river St. Lawrence, and the French settlements. Vetch made a full representation to the British ministry, of the state of things in America; and of the necessity of carrying the war into Canada. The British ministry approved of the plan; and early in the spring, [1709] Vetch came to Boston with letters from the earl of Sunderland, the British secretary of state,

* Hutchinson's Hist. Massachusetts, Vol. 2. p. 127—159. Belknap's Hist. New-Hampshire, Vol. 1. p. 329—347.

to the governors of the English colonies to engage their assistance.

The plan announced by these letters, was, that her Majesty would dispatch a squadron of ships to Boston, by the middle of May, with five regiments of regular troops. The colony governments eastward of Connecticut, were required to raise twelve hundred men; and to furnish them with transports, flat bottomed boats, pilots, and provisions, for three months. With this force it was designed to make an attempt upon Quebec. At the same time fifteen hundred men were to be raised in Connecticut, New York, New Jersey, and the southern colonies. This corps was to proceed by way of lake Champlain, and make a descent on the Island of Montreal. Vetch was appointed a colonel, and Nicholson, by the nomination of the governor of New York, and the consent of the governors of Connecticut and Pennsylvania, was appointed commander in chief.

All the colonies, except Pennsylvania, furnished their quotas of troops. The provincial army from the eastern colonies, was ready to sail for Quebec by the twentieth of May. Nicholson with his troops marched early in the summer to Wood creek, where he was directed to wait till the fleet should arrive at Boston. Besides the quotas of troops which were to be raised, several independent companies were formed, and sent on to the army. Six hundred Indians were also collected, and a thousand of their wives and children were maintained at Albany during the campaign. Provisions and stores for the army were collected

and transported ; and more than one hundred battoes, and as many birch canoes were constructed for crossing the lakes. Three forts were built at Wood creek, besides many block-houses and stores for the provisions, which had been provided and transported with great dispatch.

Every thing now bore the appearance of success. The public affairs of Great Britain were conducted by a wise and able ministry. Their arms had been attended with uncommon success in Flanders, under the celebrated duke of Marlborough ; and France was so weakened by her repeated defeats in that country, that she was not in a condition to give assistance to so remote a colony as Canada. The Indians of the five nations, through the address and solicitations of Schuyler, appeared to be heartily engaged in the business. Joy seemed to sparkle in every eye, and the expectation appeared to be universal, that the time was now come, when Canada was to be reduced ; and an end put to those horrid scenes of destruction and slaughter, which had so long distressed and wasted the country.

The scene of joy and expectation was not however of a long duration. The armament expected from England did not arrive ; nor any intelligence that it was ready to sail. A great mortality began to prevail among the troops at Wood-creek. With the sickness and disappointment, the public humour and expectation began to change ; and the spirit of discontent and suspicion became apparent, and increasing. The delay of the fleet spread a

general discontent through the country; and early in the fall, the assembly of New York addressed their commander in chief, to recall their forces from the camp. Nicholson and Vetch put an end to the campaign; and repaired to New Port in Rhode Island, to join in a congress of colony governors, to consult what further attempts they should make against the enemy. Two or three days before this congress met, on October the eleventh, intelligence was received from England that the British ministry had been obliged to give up the prospect of the Canada expedition: That when the troops were ready to embark, news arrived of the defeat of their allies in Portugal, and that the British ministry had no way to afford them relief, but to order to their assistance the troops designed for Canada; and that their attention was now wholly diverted from that expedition. Upon the receipt of this news the assembly of Massachusetts desired their governor to disband their men, and dismiss their transports.

Thus ended the second attempt to reduce Canada. The plan of the expedition seems to have been well concerted, but it was not known how many difficulties would unavoidably attend the progress of an army through Lake Champlain; and how much time it would require. While Nicholson lay at Wood creek, the governor of Canada had intelligence of all his motions; and sent out an army from Montreal of fifteen hundred French and Indians, to oppose him. The French army set out on the twenty eighth of July, and in three days advanced forty leagues towards Nicholson's camp. The intelligence

they received, was, that the English army amounted to five thousand ; and they concluded it would be the safest to return to their advanced posts, and receive them there. If Charlevoix, the French historian, is to be credited, the Indians of the five nations were doubtful whether the complete success of the English army would be best for them. Upon the authority of father Mareuil, who had been a prisoner at Albany, he relates that a grand council of Indians was held at Onondago, that one of their old men made a speech in the council, and asked them whether they were not sensible that they were situated between two powerful nations, either of which were able to extirpate their tribes ; and would not fail to do it, when either of them had fully subdued the other. He then advised them not to adopt any measures that would tend to destroy their own importance and independence; but to pursue their former policy, and to be at peace or war with either nation, as should best tend to keep up the contest between them. The speech and policy of the aged Sachem made a great impression on the assembly ; and according to Mareuil, the Indians were not active in assisting Nicholson, but rather wished to pollute the water from which his army drank, and to impede their progress. But whatever might be the circumstances, an event in *Portugal* put an end to the whole expedition. And the plan concerted and urged by the British ministry served no other purpose than to produce the loss of a great part of Nicholson's army, to entail a heavy debt on the English colonies, to dishonour them in the view

of the French and Indians, and to spread a general discontent and suspicion through the country.*

The attempt upon Canada having failed, the frontiers were again involved in blood and destruction. While the preparations were making to invade Canada, the French employed all their arts in managing the Indians who were attached to them, and engaging them in a vigorous opposition ; but as soon as the danger was over, numerous parties were sent out to harrass the English frontiers. These irruptions were chiefly made on the northern and eastern parts of New England. Among others, one of their celebrated partizans, Rouville, with one hundred and eighty French and Indians, made another attempt upon Deerfield. The inhabitants had but lately returned from their captivity, and had not forgot their sufferings. The enemy was discovered at a distance, the inhabitants rallied, bravely defended themselves, and repulsed their assailants.

New York had as yet escaped the Indian desolation and carnage, being covered by the Indians of the five nations ; between whom, and the French and Indians of Canada, there was yet subsisting a treaty of friendship and neutrality. Mr. Hunter, the governor of New York, was so apprehensive of danger from some of the confederates, that he made a voyage to Albany, to renew the treaty that subsisted with those nations. While engaged in this business, he was strongly solicited by the New England govern-

* Smith's Hist. New-York, p. 176. Trumbull's Hist. Connecticut, p. 458 Hutchinson. Vol. 2. p. 162.

ments to engage the five nations in a war with the Abenaquies, who were daily ravaging their borders. Attentive chiefly to the interest of the province of which he was governor, he declined the measure, lest it should bring hostilities upon that province. New York commended this policy as wise, prudent, and salutary to that province. The New England governments condemned it as narrow, partial, and selfish; and tending to create distrust, danger, and disunion, in the English provinces; and were loud in their complaints, that their enemies found at Albany, arms and ammunition to carry on the war against them, and a good market for all the spoil and plunder that was taken from them.

Such however was the importance of vigorous measures to preserve the attachment of the five nations, and to defend their own frontiers, that the English colonies still retained the idea of driving the French out of Canada. The congress of governors which met at Rhode Island, were agreed in the necessity of this measure; and Nicholson and Vetch who had met with them, were fully in the same sentiment. It was agreed that an address should be made to queen Anne, representing the great harmony and exertions of the colonies in her service, the necessity of reducing the French in North America to her government; and praying her majesty to grant to the colonies an armament, which with their assistance, should be adequate to the design; and that agents should be sent to Great Britain, to join with Nicholson in representing the state of the country, and soliciting assistance against Canada.

No man at that time had a more extensive acquaintance with the affairs of the English colonies than colonel Schuyler of Albany. He fully comprehended the importance of the Indian alliance and trade, the necessity of expelling the French from the northern continent, and the danger that arose to the English colonies from the diversity of their interests and governments. His influence among the Indians was much greater than that of any other man: By his liberality and generosity to their chiefs, he had impaired his own fortune, but acquired an ascendency that was of much use to his country. Dissatisfied with the management and failure of the expedition, impressed with the necessity of vigorous exertions against the French, he resolved to make a voyage to England at his own expence; and to carry with him five of the Indian sachems, to give a more sensible impression to his solicitations at the British court. The assembly of New York had determined to address the queen on the subject of a Canada expedition; and they availed themselves of Schuyler's intentions, to express the sense they had of his merits, and to have their address presented by him.

Schuyler soon embarked from New York with the five Indian chiefs, and had a prosperous voyage to England. The manner of his reception, served to display the knowledge and prudence, with which he had concerted his plan. His five Indian kings engaged the attention, and gave him admission to all orders, companies, and societies of men in the kingdom. The lords and commons, the nobility and gentry,

the clergy, the philosophers, and citizens, all wanted to see the American Mohawks. The mob followed them, wherever they went; and small portraits of them were every where sold in the streets. The British court was then in mourning, on account of the death of the prince of Denmark; and it was determined in the cabinet, that the Mohawk kings should appear to mourn as well as the rest. The managers of the play house were to determine upon the forms, and adjust the ceremonies of their dress; and the queen was to be at the expence. The result was, the five Mohawks came forth arrayed "in black under cloths, after the English manner; but, instead of a blanket, they had each a scarlet ingrain cloth mantle, edged with gold, thrown over all their other garments." The next part of the business was to adjust the etiquette of the public audience they were to have of her most sacred majesty; and it was concluded that profound reasons of state required that an extraordinary solemnity should attend this transaction. Sir Charles Cotterel, master of the ceremonies, conducted them in two coaches to St. James's; and the lord chamberlain introduced them to the royal presence. Amidst this scene of parade and ceremony, the Indians made a speech to the queen, April the nineteenth, 1710; the whole object of which was to persuade her majesty to make another attempt for the conquest of Canada; but the speech itself, whether owing to the customs of the British court, to an English composition or correction, to an adjustment to a royal European ear and importance, or to any other cause,

the speech itself was destitute of the spirit, dignity, energy, and independence, with which the Mohawks always spoke in their own country.*

THE speech however had the effect, which was intended; it proved acceptable to her most gracious majesty; and Schuyler had the pleasure to see his plan succeed, and the address to make his five Indians of more consequence at the court of London, than the whole royal family would have been in the Mohawk country.

APPLICATIONS were now before the queen from New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and the five nations, seconded by Nicholson and Vetch, and many other respectable characters, soliciting for another expedition against Canada. The British ministry at first seemed inclined to favor the business, and encouragement was given that

* According to Oldmixon's account, the following is a translation of the Indian address.

"GREAT QUEEN,

"WE have undertaken a long voyage, which none of our predecessors could be prevailed upon to undertake, to see our great queen, and relate to her those things, which we thought absolutely necessary for the good of her, and us her allies, on the other side of the water.

"WE doubt not but our great queen has been acquainted with our long and tedious war, in conjunction with her children, against her enemies the French; and that we have been as a strong wall for their security, even to the loss of our best men. We were mightily rejoiced, when we heard our great queen had resolved to send an army to reduce Canada, and immediately, in token of friendship, we hung up the kettle, and took up the hatchet, and, with one consent, assisted colonel Nicholson in making preparations on this side the lake; but, at length, we were told our great queen, by some important affairs, was prevented in her design at present, which made us sorrowful, lest the French, who had hitherto dreaded us, should now think us unable to make war against them. The reduction of Canada is of great weight to our free hunting; so that if our great queen should not be mindful of us, we must, with our families, forsake the country, and seek other habitations, or stand neuter, either of which will be much against our inclinations.

"IN token of the sincerity of these nations, we do, in their names, present our great queen with these belts of Wampum, and in hopes of our great queen's favor, leave it to her most gracious consideration." Smith's Hist. Newyork, p. 138.

it would be taken up the next spring. Nicholson came over in July with that expectation, accompanied by a fleet of five or six frigates, with orders to raise recruits in the colonies. They were designed however, not to make an attempt upon Canada, but to effect the reduction of Port Royal, and Nova Scotia. The chief command was given to Nicholson, and he made an easy conquest of the place on the fifth of October. In honor to queen Anne the place was now named Annapolis, and Vetch, who was adjutant general, was appointed by Nicholson to be the governor of the place.

ENCOURAGED by this success, Nicholson in the fall made another voyage to England to urge again the Canada expedition. The expectation of the country had been so much disappointed by the measures of the British court, that it was not expected that any assistance would be afforded. The business however was resumed, and the ministry fell in with the proposals. On June the eighth, 1711, Nicholson arrived at Boston, with the intelligence that a fleet might soon be expected from England ; and with orders that New England, New York, New Jersey, and Pennsylvania, should have the quotas assigned to them in readiness to join the expedition. A general meeting of the governors of the colonies was immediately appointed at New London ; and while they were holding a council upon the subject of their orders, the fleet arrived at Boston but sixteen days after the first intelligence of the expedition by Nicholson.

THE fleet was not furnished either with pilots or provisions ; and in addition to the troops

and stores required of the colonies, they were called upon to find provisions for the English fleet and army for ten weeks. It must have been known to the British ministry that a compliance with these requisitions was impracticable. The colonies, from the nature and circumstances of the ministerial management, were suspicious that nothing would be effected; and that in such an event, the policy of the British cabinet would be, to lay the blame upon them. Zealous for the expedition, and determined that no fault or blame should attach to them, they made the most vigorous exertions to comply with the requisitions. Troops were raised with the greatest expedition, provisions were procured wherever they could be found. In some of the colonies, a price was fixed for them by the acts of the assemblies; and in others, the owners were compelled to part with them, or to have them seized by the civil authority. The whole country was in motion, to provide for the expedition; and no other business was much attended to, but the raising of troops, and procuring military stores.

So general and spirited had been the exertion of the colonies, that in little more than a month from the arrival of the fleet, the levies and provisions for the colony army, and for the fleet, were compleated; and on the thirtieth of July, the whole armament sailed from Boston The fleet consisted of fifteen ships of war, from eighty to thirty six guns, with forty transports, and six store ships; under the command of Sir Hovenden Walker. The army on board contained seven regiments from the duke of

Marlborough's troops, and a battalion of marines: two regiments raised in New Hampshire, Massachusetts, and Rhode Island, were also embarked. The whole amounted to near seven thousand men, with a fine train of artillery, and amply provided with the necessary warlike stores, under the command of brigadier general Hill. This force was fully competent to the reduction of Quebec; which at that time was not strongly fortified, or in any preparation to withstand a regular siege by a veteran army.

On the same day in which the fleet sailed from Boston, Nicholson set out on his journey to Albany; and in a few days appeared at the head of four thousand men. This army was raised in Connecticut, New York, and New Jersey. The Connecticut troops were commanded by colonel Whiting, an experienced officer, who had commanded them the year before at Port Royal. The New York and New Jersey troops were commanded by colonels Schuyler, and Ingoldsby; and Schuyler, with his usual spirit of activity and enterprize, had procured six hundred Indians of the five nations, to join the colony troops.

The enemy in Canada were not unacquainted with these preparations. Vaudrieul, the governor general, sent his orders from Montreal to Sieur Beaucourt, to hasten and strengthen the works at Quebec; and commanded all the regular troops and militia to hold themselves in readiness, to march on the first alarm or notice. Four or five hundred Indians of the distant nations, were collected at Montreal. Several Indians, and two missionaries, were sent among

the five nations, to detach them from the English interest. Quebec was fortified, and put into the best situation that the time would admit, to sustain a siege ; and all the principal posts below the city, and on both sides of the river, were prepared to oppose the landing of the British troops.

WALKER arrived with the fleet in the mouth of the river St. Lawrence, on the fourteenth of August. Fearful of losing sight of his transports, and the wind fresh at the north west, he put into Gaspe bay ; and continued there till the twentieth. On the twenty second, two days after he left the bay, the fleet appeared to be in great danger ; without soundings, without sight of land, surrounded with a thick fog, and the wind high at the south east. In this situation the ships were brought to, with their heads to the southward, in expectation of being driven by the current, into the midst of the channel. Instead of this, about midnight, August the twenty third, the seamen found that they were driven on the north shore, among the rocks and islands, and in extreme danger of being lost. The men of war escaped, but eight transports were wrecked on Egg Island, near the north shore ; one thousand of the men perished, and six or seven hundred were saved by the other ships. In this distress but one of the colony vessels was lost, and the men of that were saved ; the admiral and general were in great danger, but escaped by the vessel's coming to anchor. The next morning the wind came round to W. S. W. the admiral bore away for Spanish river, and the men of war and transports

followed. The wind came round again to the east, and would have carried them to Quebec in two days; but instead of making another attempt, they were eight days beating down the river, against an easterly wind, before they arrived at Spanish river in the island of cape Breton. At that place a council of war was held, and after some fruitless consultations it was unanimously resolved, not to make any further trial to go up the river St. Lawrence, and not to make any attempt against the French at Placentia in Newfoundland; but to return, as soon as they could, to England. On September the sixteenth, the fleet sailed for England, and the American troops and vessels departed for their respective colonies; October the ninth, Walker arrived at Portsmouth. Here the scene was closed; in addition to the other misfortunes, on the fifteenth, the admiral's ship the Edgar, of seventy guns, was blown up; having on board above four hundred men, many other persons who came on board to visit their friends, and most of the admiral's papers.

The army designed to invade Canada by way of lake Champlain, had not advanced far from Albany, before they received intelligence of the disaster which had attended the fleet. Nothing remained for Nicholson, but to disband his army and return. The marquis de Vaudreul had been at Quebec, waiting for the arrival of the English fleet. He received intelligence by the fishermen, and other vessels, that many ships had been stove, that much military apparatus, and many dead bodies with red coats had been driven on shore, and that the river was

clear of ships ; and he justly concluded that the English fleet had suffered so much, that they had given up the idea of making any attempt upon Quebec. Immediately he ordered the whole force of Canada towards Montreal, and lake Champlain ; and formed a camp at Chambly of three thousand men, to oppose Nicholson's army, should they attempt to penetrate Canada in that quarter. But he was soon informed that he had nothing to fear from the colony army ; that Nicholson had returned with his troops, upon the news of the disaster which had attended the fleet ; and that the people of Albany, instead of being engaged in any hostile attempts against Montreal, were in much anxiety and fear for their own safety.

Such was the issue of the third attempt to effect the reduction of Canada. The two former had served to bring heavy debts upon the colonies, to destroy a number of their young men, to discourage the public confidence and expectation, and to abate the attachment of their Indian allies. This, had not only produced the same effects, but it served to fill the country with jealousy and suspicion of the British ministry ; with severe charges, and loud complaints against their conduct. The want of seasonable intelligence and orders, the late arrival of the fleet at Boston, the known impossibility of procuring the provisions required without previous notice, the complaints and obstinacy of the admiral, the ignorance of the pilots, the secret intentions of the tory ministry, were subjects of angry debate and altercation. The remarks of the whigs in England were still more severe.

Lord Harley went so far as to say, in his account of this expedition, that the whole was a contrivance of Bolinbroke, More, and the lord chancellor Harcourt, to cheat the public out of twenty thousand pounds. No public enquiry seems to have been made into the matter. It is more candid to assign the misfortunes of the fleet to error, than to design. But when every allowance is made that candor can admit, it will be extremely difficult to believe that the British ministry at that time were seriously in earnest, in wishing to carry their conquests any further against France.*

The ill success attending this expedition, gave to the five nations unfavorable sentiments, of the power and policy of the English colonies. Emissaries were among them from the governor of Canada, to seduce them from the English, and attach them to the French, the better managed and more successful cause. And very serious apprehensions were entertained, that they were inclining to the French interest. The eastern Indians were encouraged by the failure of the expedition, to harrass the frontiers of Massachusetts and New Hampshire ; and much damage was done the next summer in that part of the country. Dudley, Salstontal and Cranston, the governors of the eastern colonies formed a design to engage the five nations in a rupture with the French, to afford some relief to their frontiers. But neither the governor, the assembly of New York, or the Indians, appearing to favor the plan, the scheme was dropped ;

* Smith's Hist. New York, p. 146. Hutchinson's Hist. Massachusetts Vol. 2. p. 180. Trumbull's Hist. Connecticut, p. 465.

and the eastern colonies defended themselves with good success, against the inroads of the savages.

The European powers had now become tired of the war. The real interests of the French court, and the factions of the British, inclined them to terms of peace; and on March the thirty first, the treaty of Utrecht was signed, by the plenipotentiaries of Great Britain and France. The fifteenth article of this treaty was designed to prevent any further interference of either power to molest, or to influence the Indians to war. The plenipotentiaries seem to have scarcely known whether to call the Indians, allies, friends, or subjects; but the Indians themselves perfectly well knew, that they did not mean to be in subjection to either of the European powers, or to their colonies; but to preserve their independence, and make the most that they could of their trade, and of their quarrels.

When the news of this treaty became known in America, the Indians every where appeared to be disposed to peace. On the eleventh of July, 1713, the eastern Indians had a treaty with the governors of Massachusetts and New Hampshire, at Casco bay; they renewed their professions of allegiance, engaged to be at peace with the English, and to prevent all hostilities for the future. Though little confidence could be placed in such treaties, such had been the sufferings occasioned by the war, that this agreement with the Indians was considered as a matter of great benefit and joy to all parties; and the country had the prospect of that tran-

quility, which the people so much needed and desired.

Peace with the savages however could not be of long duration. The English were constantly extending their settlements to the eastward. The Indians claimed the lands, and an opposition of interests was constantly producing jealousies and complaints on both sides: the governor of Canada availed himself of so favorable an opportunity to encourage and assist the indian animosity, without appearing to take any avowed part in the business. Insults and ravages soon succeeded, which terminated in burning the property, and captivating the inhabitants in the advanced settlements: And from 1720 to 1725, a war was carried on with great violence between the Indians in the eastern parts of Canada, and the provinces of Massachusetts and New Hampshire. Few wars have ever been more bloody or destructive. But as the crowns of Great Britain and France were then at peace, this war could not be carried on with the open assistance of the French government, and of course did not become general among the Indian tribes. To prevent such a calamity there was a congress of the English governors and commissioners, to renew the ancient friendship with the Indians at Albany; and Mr. Burnet, governor of New York, prevailed upon them to send a message to the eastern Indians, threatening them with war, unless they concluded a peace with the English. The Indian war became of course confined to the eastern parts, and did not extend to the province of Newyork, or to any of the settlements in the vicinity of

lake Champlain; and was concluded by a treaty with the Indians at Falmouth, in the year 1725. At this period both the English and French were extremely cautious to preserve the friendship of the five nations, as they had lately received a very considerable addition to their strength. Above eighty Nicariagas, with their women and children, had repaired to their territories, from the country north of Missilimakinac; and the whole tribe of Tuscaroras, who possessed a large tract of country near the sources of James' river in Virginia, had also removed and settled near the south east end of the lake Oneida. This event had augmented the Indian importance; and instead of calling themselves the five, they now assumed the name of the *six* nations; and like the European powers, felt the comfort and pride of increased territory, population and power.

From the treaty of Utrecht, a long period succeeded, in which there was peace between the British and French courts. Their colonies in America, were now enjoying the benefits of it; but neither of them were inattentive to their future prospects or interests. Aware of the increasing power of the English colonies, and the threatening aspect which it had on the growth and safety of their own, the court of France had adopted a regular and systematic plan of conduct and policy. Their aim was to seize all the important posts and passes from Canada to Louisiana, to fortify the commanding situations, and thus to command the Indians, secure their trade and dependence, and confine the English to a narrow limit along the sea coast, and pre-

vent their extending any further into the Indian or inland countries. Mr. Burnet, the intelligent and vigilant governor of New York, well acquainted with the geography of the country, very justly concluded that the most effectual method of counteracting the French pursuits, would be to get the command of lake Ontario. For this purpose, in the year 1722, he began to erect a trading house at Oswego, in the country of the Senecas : and to make it a place of increasing strength, trade, and general resort. Nothing could more naturally excite the jealousy, and alarm the fears of the French, than this proceeding of governor Burnet. An English trading house and fort at the mouth of Onondago river, could not fail to injure their trade, to introduce the English into the heart of the Indian country, and without a considerable naval force on their part, would give them the command of lake Ontario, and divert the Indians from their customary route and resort to fort Frontenac. Determined at all events to preserve the Indian trade, and the command of lake Ontario, in the year 1726, they launched two vessels in the lake ; and transported materials to build a large store house and to repair the fort at Niagara. The French already commanded the entrance into the lake at the east end, by fort Frontenac ; if they could now secure the navigation by their vessels, and the entrance into the west end of the lake by the fort and trade at Niagara, they would effect their purpose and render Oswego useless to the English, by carrying the Indian trade two hundred miles further to the west. The English and

French governors exerted themselves on these occasions ; wrote, complained, and sent messengers to each other ; tried to engage their European sovereigns to interfere ; flattered, deceived, and made speeches to the Indians, to convince them that all they meant was to promote their safety, by taking possession of their country : thus murmuring and wondering at the injustice and fraudulence of each other's proceedings, they agreed in the event, to keep firm possession of all the posts they had established in the Indian territory.

In this kind of enterprise and manœuvre, the French generally discovered the most activity and address : and while the attention of New York was taken up with the affairs of the western lakes, the French determined to make nearer approaches to the vicinity of Albany. In pursuance of this plan, in the year 1731, they came up lake Champlain with a considerable force ; and immediately began to erect a fort at Crown Point. No measure could have been better adapted to promote their own interest. It was through lake Champlain that their troops had marched in their expeditions against Schenectady, the Mohawk's castles, and Deerfield. It was through this lake that their scouting parties found the most easy, and the safest passage, in their excursions against the English colonies. In all the attempts of the English to effect the conquest of Canada, the attacks upon Montreal were always contemplated to have been effected by the waters of lake Champlain. To erect a fortress at the south end of this lake, was to secure the whole navigation of it ; and the com-

mand of a large portion of the English and Indian frontier. From this commanding situation the French could not only prevent the attempts of the English to penetrate into their own country, but would always have a magazine of arms and ammunition, to supply their own troops and scouting parties ; and an asylum, to which the Indians might readily retreat, from their plundering and scalping expeditions against the English frontiers. And by means of the river Sorel, and the lake, it might always be reinforced in three or four days ; or receive any supplies, without difficulty or danger.

The French garrison was at first placed on the east side of the lake, and the settlement was begun, in what is now the town of Addison. On the western side, a more convenient and safe situation was found ; in which the harbour was good, and the fortress would be surrounded by water on three of its sides. On this spot, now called Crown Point, the French erected a fort sufficiently strong to resist any force, that could be suddenly, or easily brought against it ; and gave it the name of St. Frederick. The land on which it was erected, properly belonged to the six nations ; but was claimed by the government of New York, and had been granted by one of their governors, so early as 1696, to Dellius, the Dutch minister of Albany. The designs of the French, and the dangerous consequences attending the erection of their new fort, were well understood in the English colonies. The Massachusetts government was not a little alarmed. Mr. Belcher, their governor, gave the first information to the government of

New York, of the French proceedings. He wrote to Mr. Van Dam, president of their council, on the subject; informed him that the Massachusetts assembly had voted to bear their proportion of the expence of a messenger to Canada, to forbid the works, and urged him to engage the opposition of the six nations. New York, at that time agitated with internal controversies, paid very little attention to the business. On February the fourth, 1732, Van Dam laid Belcher's letter before his council: With a singular weakness and want of spirit, they advised him to write to the commissioners of Indian affairs at Albany, and make inquiry whether the land belonged to the confederates or to the river Indians. Their passiveness on this occasion was the more unaccountable, as the British crown at that time supported four independent companies at an annual expence of 7500l. sterling, for the protection of that province. Thus were the French suffered to advance nearly two hundred miles towards Albany; and to erect a fortress, which would enable them in any future war, to make their assaults with safety and success, on the frontiers of New York, Massachusetts, and New Hampshire.*

While the English and French colonies appeared thus suspicious, and preparing for each other, both of them enjoyed the substantial and uninterrupted blessings of peace. The pacific disposition of the European courts at that time, and the mutual interests of the colonies, made

* Smith's Hist. New York.

all parties carefully avoid the appearance of hostilities. They were enjoying the benefits of mutual trade and commerce, and the Indians were unusually pacific ; every where appearing more disposed to trade and friendship, than to hostility and war. To the English, this state of peace was peculiarly beneficial ; for although the French generally exceeded them in the management and activity of a predatory war, the English colonies were far superior in the affairs of agriculture, commerce, forming new settlements, improving the fisheries, and other arts of peace : And they could not but wish for a continuance of that state, which not only contributed to increasing extent, population, wealth, and safety ; but was every year giving them the superiority over the French colonies. Some persons began to flatter themselves that the Indians had in fact changed their habits ; and had no hostile events taken place in Europe, it is not improbable that peace would have continued for many years longer in the American colonies.

In the year 1740, the affairs of commerce had involved the crowns of Great Britain and Spain in mutual hostilities. Declarations of war ensued ; and in conformity to the European custom and policy, the war spread over a great part of Europe. France soon became engaged in it, and a declaration of war ensued between Great Britain and France, March 31, 1744 ; of course, their colonies and Indian allies were again to be involved in destructive and bloody contests. The scene of both was opened in Nova Scotia ; and the French, with

their usual activity and impetuosity, began the business by invading the island of Canseau; they took the island, burned the houses, destroyed the fishery, and made the garrison and inhabitants, their prisoners.

To savages, the horrors and plunder of war are so agreeable, that when the flame is once kindled, they delight to increase and expand it; and notwithstanding the long period of peace and friendship, they very readily embraced the opportunity to fall upon the English frontiers. In these incursions, the advantages which the fort and settlement at Crown Point gave to the French and Indians, were soon and severely felt. In the first year of the war, but little damage was done; but in the course of the next year, scouting and ravaging parties of French and Indians every where appeared, and carried destruction and slaughter around the frontiers of the English colonies. Mr. Shirley, governor of Massachusetts, was at that time the most active and enterprising of any governor in the English colonies. His attention was chiefly taken up in the year 1745, in planning and executing the important and successful expedition against the French settlements in the island of Cape Breton. During that summer, and the next, the Indians in small parties were killing, scalping, and plundering, wherever they could find a defenceless party or family.

The most advanced fortress at that time in Massachusetts, was a fort at Hoosick, since Williamstown. This fort was erected at the breaking out of the war, to cover the western parts of the province from the Indian depreda-

tions, and bore the name of the province. In August 1746, an army of about nine hundred French and Indians set out from Crown Point, under the command of M. de Vaudrieul, to attack this place. They came before it, August the twentieth. The fort was commanded by colonel Hawks; but thirty three persons were in the garrison, including women and children; and the fort was not properly provided with ammunition. Hawks defended the place with much fortitude and spirit, but at the end of twenty eight hours, he had expended his powder, and was obliged to propose terms of capitulation. It was agreed that the garrison should be prisoners of war, but that none of them should be delivered to the Indians. The day after the capitulation was compleated, Vaudrieul divided the prisoners, and delivered the one half of them to the Indians; one of the prisoners being unable to travel, was immediately killed. The French general, when accused of an open violation of the capitulation, assigned as the reason for his conduct, the state of his army; that they were in danger of a mutiny, the Indians being highly irritated that they were by the capitulation deprived of their part of the plunder and prisoners. Hawks lost but one man in the siege; and supposed he could have preserved the fort, had he been supplied with ammunition and provisions. From the best accounts that he could procure, the enemy, in those that were slain or died of their wounds, lost forty five of their men in this enterprise.

Mr. Shirley, to the astonishment of all

Europe, having succeeded in effecting the conquest of Louisbourg by the New-England troops, was deeply engaged in a plan for the reduction of the French dominions in the northern parts of America. For this purpose in the fall of 1745, he had written to the British Ministry, soliciting the aid of a fleet and army to attempt the conquest of Quebec, while the colony forces should be engaged in an expedition against Crown Point. The British Ministry agreed to the proposals, and Shirley with his usual spirit of energy and enterprise, engaged all the New-England provinces, and New-York in the proposed expedition. The provinces, animated by the success at Louisbourg, pursued the business with great eagerness; their troops were raised early in the season, and they waited all summer, impatient for intelligence and orders from England. In this state of impatience and expectation, the news came that a large fleet and army from France, had arrived at Nova-Scotia, commanded by the duke D'Anville; that it was designed, and powerful enough to recover Louisbourg, take Annapolis, to break up the settlements on the eastern coast of Massachusetts, and effect the conquest of Boston, and perhaps of New-York. England was not more alarmed by the approach of the Spanish armada in 1588, than was Boston, and the other sea ports, on this occasion. Alarm and terror ran through the country, and nothing was to be seen or heard, but preparations to defend the maritime towns, and sea coasts. An uncommon series of misfortunes, losses, storms and shipwrecks, destroyed the power, and defeated

the designs of the French armada; and those of their ships, that escaped destruction by the storms and seas, returned singly to France, without having made any attempts upon the English colonies. When the alarm occasioned by the French fleet had subsided, and it became known that it was nearly destroyed, and was attempting to return to France, Mr. Shirley's hopes revived that he might still effect something against the enemy. So much was he engaged in the business, that he proposed to make the attacks upon the enemy in the midst of winter; that the New-Hampshire troops should proceed by the way of Connecticut river, to the Indian village of St. Francis, and lay it waste; and that the Massachusetts, Connecticut, and New-York troops, at the same time should move on through lake George, and attempt the conquest of Crown Point. Such was Mr. Shirley's influence at that time, that all the provinces which had raised troops for the expedition, agreed to his proposal of a winter campaign, except Connecticut. To that colony, such an experiment appeared too dangerous and uncertain; and it was owing to their refusal to join in it, that the winter expedition was given up.*

On Connecticut river, the most advanced settlement at that time, was at a place called Number Four, now Charlestown in New-Hampshire. A fort had been built there some years before, which was designed to protect the settlements and forts in the vicinity. From the

* Belknap's Hist. New Hampshire, Vol. 2, p. 234.

commencement of the war several parties of Indians had appeared at that place ; and at different times had killed, and captivated some of the inhabitants, and frequently destroyed their cattle. In the spring of the year 1747, the enemy made an attempt to take the fort, and destroy the settlement. On the fourth of April, M. Debeline came before it with a large party of French and Indians. It was defended by captain Stevens, an able and judicious officer. The enemy commenced their attack by firing at the fort, on all sides, with their muskets. These making little or no impression, they next attempted to burn the fort by setting fire to the fences, log houses, and other buildings ; and by discharging against it flaming arrows. Having tried these methods for two days without success, they next prepared a wheel carriage, loaded with dry faggots. This machine they pushed before them to set fire to the fort, while it served to protect them from the fire of the garrison. These attempts were defeated by the bravery and prudence of Stevens and his men. Debeline then urged Stevens to surrender the garrison, and be conducted to Montreal as prisoners of war ; threatening to storm the fort and put all to the sword, if this was refused. In answer he was told that the garrison had determined to defend the fort to the last extremity. On the morning of the third day it was proposed, if Stevens would sell them provisions they would depart. This also was refused ; but Stevens informed them he would give five bushels of corn for any captive, for whom they would give an hostage, till they

could be brought from Canada. On receiving this answer a few guns were fired, and Debeline with his troops withdrew to Crown Point. Sir Charles Knowles, a commodore in the British navy, was then in Boston harbor ; and so much did he admire the bravery, and soldier like conduct of Stevens' in defending his fort, that he presented him with a valuable and elegant sword, as a testimony of respect. From this circumstance it was that the town when incorporated by the government received the name of Charlestown.*

During the remainder of this war the Indians were scattered around the frontiers in small parties, and did much damage to the inhabitants ; burning their houses, destroying their cattle, pillaging their property, killing some of the inhabitants, and making captives of others ; but there was not any regular expedition undertaken by the French till the treaty of peace at Aix la Chapelle of October the seventh, 1748, put an end to the war, between the English and French colonies. But it was not till the next year, that the Indians ceased from their hostilities.

* Belknap's Hist. New Hampshire, Vol. 2. p. 251.

CHAPTER XI.

WAR. *From the year* 1750 *to* 1757. *Conferences at Paris. Measures of the French. Embassy and defeat of Washington. Views of the English and French colonies. Congress, and plan of union at Albany. Council of generals and governors at Alexandria. Expedition and defeat of Braddock. Success of Monckton and Winslow in Nova Scotia. Proposed expedition to Niagara. Proceedings of baron Dieskau at lake Champlain. Victory of Johnson at lake George. Termination of the campaigns of* 1755. *Military arrangements of the British ministry in* 1756. *Capture of Oswego by Montcalm. Inactivity of the earl of London.*

1752. BY the treaty of Aix la Chappelle, the controversy between the British and French crowns relative to their claims in America was referred to commissioners to be appointed by the two sovereigns for that purpose. These commissioners met at Paris in the year 1752, of which Mr. Shirley, governor of Massachusetts, was one. They laboured much to establish the claims of their respective sovereigns by virtue of ancient grants, maps, treaties, priority of discovery, ceremonies of taking possession, concessions, and such other grounds of claim, as were then customary among sovereigns; and were supposed to be matters of real weight and importance. The commissioners were not able to come to any agreement; and

no other advantage resulted from their labors and controversies, than a well written account of their conferences, containing much historical and geographical information.

1753. In the mean time the settlers in the English and French colonies, were making nearer approaches to each other ; and their rulers were anxious on both sides to seize the most favorable situations and passes for new forts and trading houses. These interferences of the colonists took place the most in the provinces of Nova-Scotia, New-York, and Virginia. In these encroachments the French generally discovered the most foresight, vigilance, and activity. They surprised Logstown, which the Virginians had built upon the Ohio ; made themselves masters of the block-house, and truck-house, with the stores of twenty thousand pounds value, and destroyed the British traders : An officer, with a large force came down the Ohio, and reduced a fort, which the Virginians had built on the forks of the Monongehala. The marquis Du Quesne was at that time invested with the chief command in New-France. Of an active and enterprising genius, in the year 1753, he began a fort and settlement on the banks of the Ohio, at the place from whence he had driven the English, now called Pittsburgh ; designed to secure a station on that beautiful and extensive river, which should engross the trade, and command the Indians in the adjacent parts of the country. The governor of Virginia, Mr. Dinwiddie, was alarmed at so near approach of the French to the settlements in that province. On October the thirty first

he wrote to the commander of the French troops, complaining of sundry acts of hostility; and desiring to be informed, by what authority, the French troops had taken possession of a territory belonging to his master, the king of Great Britain.

It was on this occasion that the name of George Washington was first announced to the world. Governor Dinwiddie gave him a major's commission, and appointed him to be the bearer of his letter to the commander of the French troops. In the winter, and through a scene of much suffering and danger, major Washington executed the business of his commission with that intrepid, determined, persevering spirit, which, since that period, has so much engaged the attention and applause of his country, and of the world. M. Legardeur de St. Pierre, commander of the French troops on the Ohio, returned an answer, December the fifth, full of spirit and resolution, declaring the country to belong to the French king; and announcing his determination to obey his orders, preserve his post, and retain a situation so favorable to defence and strength.

1754. Convinced by the spirited and resolute answer of the French commander that further encroachments were to be expected, the governor and general assembly of Virginia determined to make a serious opposition to the French establishments on the Ohio. In February 1754, the assembly voted to raise three hundred men, for the protection of their frontiers. Washington at that time was a young gentleman of twenty two years of age. His

conduct, in the embassy to the French commander, had proved highly satisfactory to the governor and council; and he was now appointed lieutenant colonel, and the command of the troops was assigned to him. In addition to the men raised in Virginia, two independent companies of foot were ordered by the king to march from New-York to the frontiers of Virginia and Pennsylvania.

On April the third, Washington set out from Alexandria at the head of a little army of one hundred and sixty seven men. On May the twenty eighth, they had a skirmish with an advanced party of the French; of which nine were killed, with M. de Jumonville their commander, and twenty one were taken prisoners. A reverse of fortune soon took place: While Washington was waiting with about three hundred men for a reinforcement, he received intelligence that the French were advancing with a body of nine hundred men, and two hundred Indians. On July the third he was attacked by a force greatly superior to his own, under the command of De Villier; and after a resistance of three hours, found it necessary to submit to the superior force of the enemy. The terms that were offered to him were of an humiliating nature, but he was no longer in a situation to refuse the demands of the enemy, and was obliged to capitulate. In this engagement the English had thirty killed, and fifty wounded. De Villier reported his loss to be but two Frenchmen, and one Indian killed, and seventeen wounded; and boasted that by making use of the French language, the terms of the

capitulation were so expressed, as to make the English acknowledge that they had committed murder in the case and camp of his brother Jumonville; and that the favors manifested to them in the capitulation, were designed to show how much they desired to treat them as friends. Hostilities being thus commenced, and some of the Indians slain, it was known that in conformity to what had always been the maxims and customs of the savages, the other tribes would immediately engage, and an Indian war would commence from one end of the British colonies to the other. And before the summer was ended, the Indians all round the frontiers from Virginia to the province of Maine, appeared to be in arms, and began their attacks upon the English.

Such was the commencement of war in 1754; a war, in which all Europe was soon to be involved; and by which, the empire and destinies of North America were to be decided. The French, with a policy superior to the English, had for several years been pursuing an uniform and systematic plan of colonization. Their settlements in Canada and Louisiana were at a great distance from each other. By means of the lakes, and the rivers St. Lawrence and Mississippi, they had found situations by which these settlements might be connected by a chain of posts and forts. The plan they were executing, was to take possession of all the commanding situations from one colony to the other; to erect forts and trading houses, not far from each other; and thus to command the trade, exclude the English from the Indian country,

commerce, and alliance, and confine them to a narrow limit along the sea coast, and prevent their extending any further to the westward. The English colonies saw their policy, and were alarmed with the measures they were so incessantly and zealously pursuing; and determined to employ their superior numbers and power, to oppose the French proceedings; and to effect some plan to produce a greater uniformity in their councils and measures. Both parties had long been in the habit of trying to engage the Indian tribes in their quarrels, and to inflame the savage vengeance against their opposers. They had now approached so near to each other in their settlements, that a constant interference of views, interests and situations, could not fail to make their commerce precarious, and their neighborhood full of animosity and danger. As peace could no longer be expected between the English and French colonies, the period seemed to be now come in which the grand contest must take place, which of the countries should be subdued; and whether France or England for the future, should have the empire of North America. And all parties now set themselves very seriously to prepare for the exertion of all their powers and strength.

The first step necessary for the English colonies, was to agree upon some plan of *Union*, for their mutual protection and operations. The British secretary of state wrote to the governors of the colonies, urging such a measure, and a favorable opportunity now presented to make the attempt. A Congress of Commissioners from the colonies had been appointed at Albany,

for the purpose of holding a conference with the six nations, and to consult on measures for the general interest and welfare. Governor Shirley proposed to the several governors, that their commissioners should be instructed on the subject of an *Union among the colonies.*

On the fourteenth of June, the commissioners assembled, and on the eighteenth, the Congress was opened. It consisted of delegates from New-Hampshire, Massachusetts, Rhode-Island, Connecticut, New-York, Pennsylvania, and Maryland. They agreed to take their places in geographical order, beginning at the north; and having adjusted their ceremonies and rules of proceeding, on the twenty ninth they were ready to treat with the Indians, who had been assembled for that purpose. The ceremonies and formality that generally attend an Indian treaty, render it a matter both of curiosity and instruction. The arrangement that was adopted on this occasion, was designed to give importance to the transaction. Mr. De Lancey, lieutenant governor, and at that time commander in chief of New-York, within whose territory the lands of the six nations chiefly lay, was appointed speaker to address the Indians. On his right hand were the commissioners from the colonies; on his left hand, were the council of New-York, officers, and citizens of rank and respectability. In the front were the Sachems and chiefs of the six nations, attended by many of their tribes; arranged in a circular form, and preserving a solemn silence. The speech turned on the customary topics, how much the French injured and abused, and how much the English loved

and benefitted them ; and that they now valued their friendship in the highest degree, and should probably soon want their assistance to conquer and extirpate the French. To give weight to their eloquence, and to make more effectual impressions on the savage mind, a valuable present was made to the Indians by order of the British king ; and several of the colony governments, on this occasion followed the example of their sovereign, and endeavored by their donations to secure the Indian friendship and forbearance to their particular provinces. At no time had the presents made to the Indians amounted to so large a sum, and no art or address was spared to secure their friendship. The Indians perfectly well understood the business, and were well pleased with the presents, and with the attention that the British king and colonies had paid to them. Their answer was expressive of gratitude, and of a sense of their own importance ; and they very plainly told the commissioners, that the English were not enough attentive to their business and interest : That in the last war they had deserted some of their own forts ; that their frontier city, Albany, was almost in a defenceless state ; and that the French managed the business of fortifying and maintaining their garrisons, much better than the English had done.

The treaty with the Indians being finished, the next business of the commissioners was to form some plan of general *union*, and defence for all the colonies. The commissioners were among the first men in the colonies for rank, abilities, fortune, and influence. Instead of

contemplating any such events as a contest with Great Britain, or an American Independence, the question was how to establish such an union and government among the colonies, as should prevent their destruction and conquest by the French. One member from each colony was appointed for this purpose; Atkinson of New-Hampshire, Hutchinson of Massachusetts, Hopkins of Rhode-Island, Pitkin of Connecticut, Smith of New-York, Franklin of Pennsylvania, and Tasker of Maryland. In adjusting a plan of union and defence, different political sentiments were found to prevail. Some were fearful of throwing too much power into the hands of the king, and others were as much afraid of giving too much power to the colonies. Alarmed however on all sides with the increasing power and policy of France, they were extremely cautious not to break on these points, and in a few days agreed upon a result. Their plan was, that application should be made to the parliament of Great Britain for an act to constitute a Grand Legislative Council in the colonies. This council was to consist of delegates from the several Legislative assemblies, subject to the controul of a president general, to be appointed by the crown, and to have a negative voice. This council were to enact general laws; apportion the quotas of men and money, to be raised by each colony; determine the building of forts; regulate the operation of armies; and concert all measures for the common protection and interest. The delegates of Connecticut alone entered their dissent, and their objection was against the negative voice assigned to the crown.

With the plan of union and defence, a very just representation was made to the king, of the state and danger of the American colonies; and copies of both were laid before the several assemblies. But the plan of American union and defence had the singular fortune of being rejected, both by the mother country, and by the colonies: By Great Britain, because it assigned too many, and too important powers to the provincial assemblies; and by the assemblies, because it assigned such extensive and important powers to the sovereign, and his ministers. Thus at the very time when the fears and apprehensions of Great Britain, and her American colonies, were at an unusual height, both were fearful of the consequences of new arrangements; and endeavored with singular caution to guard against any questions, that might arise respecting the prerogatives of the king, or the liberties of the colonies. The plan of American union was agreed to on the fourth day of July 1754; but not a single member of the congress that drew it up, had an idea that they were engaged in a plan, which it was in the destinies of nature and providence to compleat, in the course of twenty two years from that day.*

While these measures were going on at Albany, Mr. Shirley was employed in securing the eastern parts of Massachusetts; and built the forts of Richmond and Western, to protect the inhabitants, and check the Indians, in that part of the country. Nor was the court of Great Britain inattentive to American matters:

* Belknap's Hist. New Hampshire, Vol. 2. p. 236.

On November the twenty fifth, major general Braddock was appointed general and commander in chief of all the troops which were to be sent to, or raised in North America; and was ordered to repair to Virginia with two Irish regiments, and to be ready for the military operations of the next spring.

1755. Intent on prosecuting the war with vigor, in the beginning of the year 1755, Mr. Shirley convened the assembly of Massachusetts, and communicated to them the plan that he had formed for reducing fort Frederick at Crown Point, the ensuing spring; and his intention to appoint colonel Johnson of New-York to the command. The assembly readily concurred in the measures proposed by the governor; and voted to raise their quota of the troops. The plan being thus adopted by Massachusetts, commissioners were sent to the neighboring governments stating the assistance that was desired of them, and requesting their concurrence and aid. Thus were the New-England provinces, New-York, and New-Jersey, all put in motion for a vigorous expedition against the French.

While Shirley was thus moving all the northern provinces, Braddock arrived at Williamstown in Virginia, February the twentieth, with two Irish regiments. Expresses were immediately sent to the governors of the colonies to meet him at Alexandria on the thirteenth of April, for a consultation on the state of American affairs, and the business of the approaching campaign. The convention met as was proposed, and the next day entered upon the business

of the ensuing season. At this convention the governors of Virginia, Maryland, Pennsylvania, New-York, and Mssachusetts attended ; with colonel Johnson, commissioner of Indian affairs. It was found that Braddock had positive orders, to proceed himself with the greatest expedition, to reduce the French fort Du Quesne, on the Ohio. Nothing more was therefore in his power, than to settle some general arrangements for the campaign with the convention ; and to leave the execution to others, as he was himself very little acquainted with the state of things in America.*

At this convention it was concluded that four expeditions should be carried on against the French in the course of the summer. One against fort Du Quesne, under the command of Braddock. Another was to be against Niagara, under the direction of Shirley. A third against Crown Point, under the command of Johnson ; and a fourth against the French forts and settlements in the bay of Fundy and Nova Scotia ; to be commanded by colonel Monckton, a British officer, but to be executed chiefly by New England troops under the command of colonel Winslow. The plan of operations for the campaign being thus adjusted, the convention dissolved ; and Braddock, Shirley, Johnson and Monckton prepared themselves for the expeditions, of which they were to take the immediate command.

Braddock was a major general in the British army ; a man of undoubted courage, and

* Review of military operations in North America, p. 10. Supposed to be wrote by Mr. Smith of New York.

expert in all the punctilios of a review, having been brought up in the English guards. In his manners he was haughty, positive and difficult of access. Though well acquainted with the European method of war, he had no idea of the service in a country thinly inhabited and every where abounding with woods, mountains, rivers, morasses, and dangerous defiles. And so attached was he to the European customs of regular discipline and order, that he despised his provincial and Indian auxiliaries ; and treated with contempt the advice of those, who endeavored to give him information of the Indian methods of attack ; and to warn him of the danger of ambush, and surprise. On the twentieth of April, he set out with an army of twenty two hundred men, from Alexandria ; and after the most extreme difficulties and exertions, arrived on the ninth of July, at the river Monongahala. Having passed the river about noon, he was within seven miles of fort Du Quesne, the object of his hopes and wishes. Marching on in perfect security, and with the most confident expectation of victory and fame, in an instant his army was alarmed with the Indian yell ; and attacked on every side, by a concealed party of French and Indians. Braddock exerted himself with much courage in the manner of an European battle ; but the European discipline, artillery, and arms, availed him nothing. He neither knew where his enemy was, or how to oppose their arts and methods of war : Having exerted himself to the utmost, and to no manner of purpose, he himself and the greater part of his army were slain, by a party of about four

hundred Indians, placed in ambush, safe from his arms, and almost concealed from his sight. Thus despising his American friends and enemies, the British general fell a sacrifice to the superior knowledge and arts of the American Indians: And it was owing to the bravery and prudence of colonel Washington, that a retreat was effected; and the remaining part of the army rescued from destruction. In this battle scarcely any of the enemy were slain, but the loss of the English amounted to seven hundred men. The defeat was total, and the carnage uncommonly great, of eighty five officers, sixty four were slain or dangerously wounded. All the artillery, ammunition, and baggage of the army were left to the enemy; and among the rest, the general's cabinet, containing all his orders, letters, and instructions. The French court published the whole of these papers; and in their printed memorials and manifestoes, avowed to all Europe that they had now compleat information of the designs of Great Britain and her colonies.

THE army that was sent to Nova Scotia, was put under the immediate command of colonel Monckton, a British officer. Colonel Lawrence, the lieutenant governor and commander in that province, had found it impossible to raise the recruits which he wanted, in Nova Scotia. His attention was turned to New England, as the only place in which he could expect success. With that view, colonel Monckton had made a voyage to Boston, in the latter part of winter, and consulted Shirley upon the business. Such was the reluctance of the New

England people to enlist under British officers, that they found it impossible to engage men to serve in the British regiments, or under British officers. It was proposed as the only expedient, that bore the appearance of success, to procure some of the New England officers, who had served in the former wars, to engage in the business. Colonel Winslow, of Marshfield, was at that time reputed to be one of the bravest and most experienced of the provincial officers. He had been an officer in the expedition to Carthagena, under general Wentworth; and had much of the military genius and spirit, which had distinguished his family in the Indian wars of the colonies. It was concluded that if he would engage in the business, the men might be raised with ease and expedition. Monckton visited and consulted Winslow upon the business. Winslow was pleased with the prospect, but wished to have the command of the troops himself. Monckton was extremely anxious to procure the men, but could not think of giving the command to Winslow. After several attempts to compromise the matter, they came to this agreement, that Winslow should have the command of all the men that should be raised in the New England provinces, and be equal at all times in command to Monckton, but only in time of action; on which occasion, the command of the whole should be in Monckton, who was to be considered as the senior officer.* This point being adjusted, Winslow was commissioned by governor Shirley, and

* Winslow's relation to the author in 1764.

heartily engaged in the business. A regiment was soon raised and sent on to Nova Scotia. Success attended the operations of the British and provincial troops. On their arrival at the river Massaquash, the provincials attacked and dispersed four hundred and fifty of the enemy who were posted there, and took their block house and brest works. On June the twelfth, they invested the fort Beau-Sejour, and in four days obliged it to submit. The next day they took the fort at bay Verte, with a large quantity of stores and provisions; and disarmed the Acadians to the number of fifteen thousand. Captain Rous, with three frigates, sailed to the mouth of St. John's river; the French abandoned their fort, burst their cannon, blew up their magazine, and deserted the place. The English had but twenty men killed, and about as many wounded in the whole of this expedition. It served to preserve Nova Scotia, to destroy the French power in that part of America, and to raise the reputation and military character of the provincials.

After the death of Braddock, the command of all the forces in North America devolved on Shirley, who had now a commission giving him the rank of major general. As soon as the council at Alexandria was finished, Shirley repaired to Boston; and made the most vigorous exertions to compleat and hasten the troops, which were designed to be under the command of colonel Johnson, and that were to go with colonel Winslow to Nova Scotia; and also to raise a number of batteau men, for the expedition to Niagara. Embarrassed with so many

cares, and such a variety of business, with his utmost exertions he could not reach Albany till the second week in July. Oswego, by the route which was usual at that time, was estimated to be nearly three hundred miles west of Albany. The passage was partly by land, but chiefly by water, upon the Mohawk and Onondaga rivers; and at every season of the year was both difficult and dangerous. A large number of batteaux had been prepared for the conveyance of the troops, stores and provisions. The fort at Oswego was of but little strength and much out of repair. It was formerly garrisoned by twenty five men; but on the commencement of the late controversies, the garrison was augmented to fifty men. Early in the spring, another company of fifty men had been ordered to that station; and in the latter end of May, captain Broadstreet arrived with two hundred more, and a number of workmen. Schuyler's regiment from New Jersey had embarked for that place, the beginning of July; and Shirley's and Pepperell's regiments were preparing to follow.

At this time the news arrived of Braddock's defeat; and was announced in terms more horrid, awful and alarming than were just. The reports had an unhappy effect on the spirits and conduct of the English troops. Suspecting and dreading another Indian massacre, some deserted; and of the batteau men, not a few left the service. The Indians of the six nations appeared to be disinclined to hostilities; and were unwilling that the operations of the war should be carried into the western country; which they

wished should remain in a state of tranquility, and be considered as a place of trade and commerce. Nor could any of them be persuaded to join the British troops, in their passage through their country. Embarrassed with such difficulties, it was not till the twenty first of August that Shirley arrived himself at Oswego. He had scarcely one half of the batteau men which had been engaged for the service ; and on that account, the transportation of provisions had been so retarded, that he was in no condition to move his army from Oswego.

A LARGE convoy with provisions being expected every hour, on September the eighteenth the general called a council of war, and communicated to them the intelligence he had procured relating to the French forts and forces at Niagara, and Frontenac ; with an account of his own force and situation. He informed them that the number of effective men in his three regiments, and independent companies, amounted to thirteen hundred and seventy six ; and that the irregulars, consisting of men from Albany and the Indians, were only to the number of one hundred and twenty. At the same time he announced to the council that as soon as the expected convoy should arrive, it was his intention to embark for Niagara with six hundred regular troops, the Albany irregulars, and Indians, with the necessary artillery ; leaving behind seven hundred of his troops to preserve the camp and stores at Oswego. The council were of opinion that the expedition to Niagara was advisable ; and that the works of Oswego ought to be enlarged and strengthened

and that a greater naval force should be provided on lake Ontario. With his usual spirit of activity, Shirley was deeply engaged in his preparations, when the weather became uncommonly tempestuous and rainy ; and continued thus for thirteen days. His troops became sickly ; and the Indians and others acquainted with the climate, pronounced the season too far advanced, to admit of such an expedition upon lake Ontario.

Doubtful as to success against Niagara, and anxious for the safety of Oswego, on September the twenty seventh, the general called another council of war. He represented to his officers what further intelligence he had received of the state of the enemy, the quantity of his own provisions, and that the numbers in his camp now amounted to two thousand men.---- The council were unanimous in their opinion that it was not advisable to proceed on the expedition to Niagara that fall, but to defer the matter to the next spring : and that in the mean time, the works at Oswego should be repaired and strengthened ; and that a new fort should be erected, and compleated as soon as possible. In conformity to the advice of his council the general gave up the prospect of an expedition to Niagara, till the next spring ; and spent the remainder of the season, in repairing and erecting forts at Oswego ; and in strengthening the English interest with the Indian nations ; several of whom, disgusted with the English methods of proceeding, were become wavering in their attachment to the English, and very doubtful of their success. It has been customary to

censure general Shirley for inactivity and delay in prosecuting the expedition to Niagara. In the state the country was then in, it was impossible to compleat such an expedition in the course of one campaign. The military services in which he had been engaged in the course of the year, were prosecuted with all the activity and prudence the nature of the service would admit.--- Few men could have done more, and probably not one man in America at that time, could have effected so much. When the winter was approaching, he made the necessary arrangements for the defence of the place; gave the command to colonel Mercer, with a garrison of seven hundred men, with orders to continue the works; and on October the twenty fourth set out on a journey to Albany and New-York, to concert measures for the next campaign.

The expedition against Crown Point had been put under the command of colonel William Johnson. This officer was a native of Ireland and had lived several years in the Mohawk country. There he had a fortified seat which he called Mount Johnson, near one of the Mohawk castles, and about thirty six miles from Albany. He was well acquainted with the Indian temper and character, had gained the affections, and was become the principal confident of the six nations; on account of his influence over them, Braddock had entrusted him with fifty thousand pounds sterling to engage their friendship and assistance, in the approaching campaign. Next to him, was general Lyman of Connecticut; of a military turn, and good abilities. The provincial troops to the number

of five or six thousand men had assembled a Albany and were in danger of becoming disorderly by their inactivity and want of employment. Lyman moved on with his troops to the carrying place, about sixty miles from Alban , and began a fort on the east side of Hudson's river, which is now called fort Edward ; and meant to remain at that place till Johnson should arrive, with the artillery. It was not till the 10th of August that Johnson could set out with his artillery from Albany ; and about the latte end of that month, he proceeded from fort Edward, fifteen miles more northerly ; and formed his camp at the south end of lake George, which before that time had been called lake St. Sacrament, the name that Champlain had assigned to it.

Soon after he had formed his encampment, he received information by his Indian scouts that a large party of French and Indians had taken possession of Ticonderoga, an isthmus which commands the passage between the lakes George and Champlain ; but that no works had been erected. Johnson was informed of the importance of that post ; and wrote to Shirley, September the first, that he was impatient to get up his batteaux & artillery ; and proposed to move on with part of his army, dispossess the French and secure the post to himself.----The French however had secured the possession, and soon erected works sufficiently strong, to defend it against surprise, or an easy conquest.

The court of France, aware that a war was commencing in North America, had early in the spring dispatched a body of troops to the

amount of four thousand men, for the defence of their northern colonies. These troops sailed from Brest early in the spring, with a large quantity of warlike stores, and a fleet of twenty five sail of the line. Eight companies of these troops had been captured, with two French men of war, off the banks of Newfoundland, by the British fleet under the command of admiral Boscawen. One thousand were landed at Louisburg, for the defence of that place. The remainder arrived at Quebec, with M. de Vaudrieul, governor general of Canada, and barron Dieskau, commander in chief of the troops. The French court wished to reduce Oswego, and thus secure the command of the lakes. With this view Dieskau pushed up to Montreal; from whence, he detached seven hundred of his troops up the river, to fort Frontenac; intending to join them himself with the remainder, as soon as circumstances would permit. Just before he had compleated his preparations, Montreal was alarmed with accounts that an English army was assembled near the lake St. Sacrament; which was represented as being numerous, and designed to effect the conquest of Crown Point, and then penetrate into the country towards Montreal. A council of war was called on the occasion, and Dieskau was urged to omit the expedition against Oswego, and proceed to Crown Point, for the defence of the forts in that part of the country against the attempts of the English army. It was not without much persuasion and reluctance that the baron consented to alter the plan of his operations, and proceed to fort St. Frederick.

When he arrived at Crown Point, he found that there was no prospect that the English army would soon make an attempt against that place. Little acquainted with an American war, he concluded to march on with his troops, and attack the English in their camp; and if successful to make further attempts upon their northern settlements, Albany or Schenectady, as should be found practicable. In this way, he was not without hopes to bring about the reduction of Oswego, by cutting off the communication between that fortress, and the settlements in New York, from which they must be supplied with provisions. With these hopes and expectations, Dieskau embarked at Crown Point with eighteen hundred men, in batteaux, and landed them at South Bay, now called Westfield. By an English prisoner, the baron received information that fort Edward was almost defenceless; and that the English camp at the lake, was without either entrenchments or cannon. He fixed upon fort Edward, as the place for attack; and marched on till he came within three or four miles of the place. There he made known his designs to his army. It consisted of two hundred regulars, eight hundred militia, and seven or eight hundred Indians. The general informed them, that the enterprise would certainly succeed; and that by reducing fort Edward, the English army at the lake must necessarily abandon their camp, and disperse in confusion, in any direction in which they could escape: Then the consequence would probably be that Albany would also fall, and Oswego be subdued by the want

of supplies and provisions. The Canadians and Indians were not persuaded that all these effects were about to take place ; they were fearful of the effects of cannon, and were averse to making an assault upon fort Edward on that account : But discovered a readiness to attack the camp at the lake, where they expected no other arms would be employed against them but musquets. Dieskau was obliged to comply with the inclinations of his troops, and abandoning his principal design, he changed his route, and put his army in motion against the main body of the English at the lake.

It was not till the enemy had departed from South Bay, that general Johnson had any intelligence of their approach or designs ; and the first information he had, was, that a large army of French and Indians had left South Bay, and were actually on their march to fort Edward. On receiving this information from some of his Indian scouts, he dispatched separate messengers to the commander at fort Edward, with advice of the enemy's approach ; and with orders to withdraw all the troops within the works which had been thrown up at that place. One of the messengers was intercepted and slain : The other got back about twelve that night, and reported that he saw the enemy about four miles to the northward of the fort. The next morning Johnson called a council of war, who resolved that one thousand men should be detached, with a number of Indians, "to catch the enemy in their retreat, either as victors, or as defeated in their designs."* This detachment was put

* Johnson's printed Letter.

under the command of colonel Williams, a brave and judicious officer; and was attended by more than two hundred Indians.

The camp of the colony troops was on the banks of lake George, and was covered on both sides with a swamp of thick wood. Upon the departure of the detachment a kind of breast work was thrown up, of some trees which were cut down for that purpose; and some of the cannon, which were received a day or two before, were hauled up to strengthen the front. Colonel Williams met the enemy within four miles of the English camp: In about an hour after his departure, a heavy fire was heard which was judged to be within three or four miles of the camp. Johnson judged that his detachment was attacked, and was retreating to the camp. He immediately beat to arms, and made the best preparation he could for the reception of the enemy. The fire approaching nearer, lieutenant colonel Cole was sent out with a party of three hundred men to cover the retreat. About ten o'clock some of the Provincials and Indians appeared, running back to the camp; and brought information, that the detachment was attacked on all sides, and was retreating: In a short time the whole party that escaped, returned in large bodies to the camp. Colonel Williams was slain in the action; the command had devolved on lieutenant col. Whiting, a Connecticut officer, who had acquired much reputation at the reduction of Louisburgh in the former war; and conducted with much bravery and prudence on the present occasion.

Johnson manned his breast work, and made

the best preparation for the reception of the enemy, that time and circumstances would permit. At half after eleven, the enemy were seen to approach. Their army was drawn up, and marched along the road, in a very regular manner; aiming directly at the center of the encampment. When they had approached within one hundred and fifty yards of the breast work, they made a halt for a short time; their regular troops preparing for the grand or center attack, and the Canadians and Indians filing off to the flanks. The regular troops began the engagement with platoon firings, which on account of the distance, and breast work, had little or no effect. The artillery immediately began to play upon the enemy; to avoid which, their militia and Indians betook themselves to the trees and swamps, and kept up an irregular fire upon the flanks. The engagement was now become general with both armies, but it was without much impetuosity on either side. The regular troops in the French army preserved their ground and order, for some time, with much steadiness and resolution; but found themselves abandoned by the Canadians and Indians, and suffered severely by the warm and constant fire from the breast work. Unable to make an impression on the center, they moved to the right, and attacked the regiments of colonel Ruggles, Williams, and Titcomb. These regiments received the attack with firmness, and kept up a constant and well directed fire upon the enemy. This attempt upon the right, continued about an hour, without the appearance of success. Dieskau now found that he could not make any

impression on Johnson's army, with his small body of regulars; and that the fire, from every part of his army, was become weak, and decreasing. To save the remainder of his troops he attempted to retreat, but it was in much confusion and disorder. Upon this manœuvre, a party from the English camp jumped over the breast work, fell upon his rear, and dispersed the soldiers that were about him. Being wounded in the leg, Dieskau could not travel himself; and was found by the party from the breast work, resting on the stump of a tree, abandoned by his men, destitute of any assistance, and unable to walk. A provincial soldier approaching him, the baron was feeling for his watch to present to him. The soldier believing he was in search of a pocket pistol, discharged his musket and gave him a dangerous wound in his hips.

Upon their retreat, the enemy halted about four miles from the provincial camp, at the place where the engagement began in the morning with colonel Williams. A party consisting of two hundred men had been detached from fort Edward, to assist the main body of the army under Johnson. This party was commanded by captain M'Ginnes from New Hampshire, a brave and active officer. He fell upon the enemy, with an impetuosity and spirit, that soon put an end to their order and consultations. They kept up their resistance for nearly two hours, but in the event dispersed in every direction. The party under M'Ginnes lost but twelve of their men. Their brave but unfortunate commander arrived the same day at Johnson's camp, but died in a few days of the wounds which he had received in the battle.

In these engagements, the greatest loss of the provincial troops, fell upon the detachment sent out in the morning. Colonel Williams, major Ashley, captains Ingersoll, Porter, Farrel, Stoddard, Stevens, M'Ginnes, with about one hundred and thirty men were slain. About sixty were wounded, among whom was general Johnson. The Indians estimated their loss at forty men; among these was Hendrick, the old Mohawk sachem. In the French army, the loss was said to amount to six or seven hundred. Among the slain were several officers of distinction, with M. St. Pierre, a major general, and commander of the Indians; but few prisoners, not more than thirty were taken.

The conduct of M. Dieskau in this expedition, cannot be viewed as the result of much discretion, or of good intelligence. The garrison at Fort Edward, at that time, did not amount to more than five hundred men, under the command of colonel Blanchard of Newhampshire. The works were unfinished, and capable of but little defence. Against this place Dieskau might probably have succeeded. But to attempt to destroy the provincial army at the lake, which was four thousand strong, with a very inferior force, bore the appearance of rashness rather than bravery. By the officers of the most experience in the provincial army, it was said, his most capital mistake was in making a halt when he arrived at the provincial camp: That such was the hurry consternation, and want of intelligence in their camp, that if the enemy had marched immediately to their breast work, as their defeated and affrighted troops re-

turned, it was not improbable they might have increased the confusion and consternation, till it issued in a dispersion of their troops. By making a halt, and firing in platoons at a distance in which it could have no effect, the provincials acquired experience, found the enemy's fire to be harmless, that their own was much better directed, and did the most execution. It was also a great misfortune to the French army, that their general continued the attack, long after it was found to be unsuccessful, and unavailing.

A VICTORY at that time was so unusual in America, that not to have lost a battle passed for an act of much merit and heroism; and Johnson was much commended that he had not been defeated. His conduct however did not pass without some severe remarks and censure. It was said there was no generalship in the management of any part of the business; that an army of four thousand men, with artillery, and a breast work, could not be in any danger from such an enemy; and ought to have destroyed their whole army. But most of all was he censured for not sending out a detachment in pursuit of a defeated, retreating army; this was warmly urged by general Lyman, but was opposed by general Johnson, and most of his field officers. Instead of making any attempt to pursue the enemy or to move forward to Ticonderoga, the day after the battle Johnson wrote to the governors of the colonies for a reinforcement; informed them that he expected another attack, and that the enemy would come on with their artillery; that he should order the troops at fort Edward, to reinforce him; and that as

soon as the fresh troops should come on, he should immediately set about building a fort. How far the intelligence which Johnson had, might justify this extreme caution, we cannot now determine. The event was, that instead of risking any thing against the enemy, he spent the remainder of the campaign in building a fort at the south end of lake George, which has since been called fort William Henry.*

THUS terminated the American campaigns in the year 1755. The plans had been chiefly formed by governor Shirley; an able and judicious statesman, well acquainted with American affairs, and deeply engaged in the interest of the colonies. They appeared to have been so well concerted, that they were approved and confirmed by general Braddock, and the council which he assembled at Alexandria. One only had succeeded: That at Nova Scotia, though ostensibly under the command of Monckton, had been principally conducted by colonel Winslow; and had fully effected the purpose of subduing the French in that province, and preserving it to the British dominions. The expedition under Braddock was conducted with extreme imprudence and rashness, and had terminated in destruction and disgrace. The Niagara expedition under Shirley, was too extensive in its plan and object, to be compleated in one campaign. At the northward, the baron Dieskau had given Johnson an opportunity to obtain a victory, without leaving his camp, or exposing himself to any danger. Braddock

* Johnson's Letter of September 9, 1755.

was slain, Shirley had lost much of his popularity, Johnson was celebrated by some and censured by others, while Winslow was every where commended and applauded.

The campaigns being closed, general Shirley convened a grand council of war at New York, to settle the plan of operations for the next year. This council was opened on the twelfth of December, and continued its session that day and the next. The invitation to the governors of the colonies was universal; but the council was attended only by the following members; the governors of Massachusetts, Connecticut, New York, Pennsylvania and Maryland; colonels Dunbar and Schuyler, majors Craven and Rutherford, and the deputy quarter master general. Shirley laid before the council, the king's instructions to general Braddock; and proposed as a plan of operations for the next year, that expeditions should be carried on against fort Du Quesne, Niagara, and Crown Point; and that a body of troops should be sent by way of the rivers Kennebec and Chaudiere, to keep up an alarm in the neighborhood of Quebec, and the eastern parts of Canada. Shirley's plan was adopted with great unanimity of sentiment, and the council dissolved in perfect harmony, after a session of two days. The governors returned to their respective provinces, but Shirley tarried at New York, in hopes to prosecute an expedition against Ticonderoga in the winter, which the season however did not permit.

1756. The plan of operations concerted at New York, in a few days after, was transmitted

to the British minister, to be laid before the king, for his approbation. This business being adjusted, on January the twenty first, Shirley set out for Boston, to meet the assembly of Massachusetts, and propose to them the raising of their quota of the troops. The assembly was disgusted with the proceedings of the last campaign, especially at general Johnson's neglecting to pursue his advantages after the defeat of Dieskau. It was with difficulty they were persuaded to concur in another expensive expedition; nor would they engage in offensive operations at the lake, till it was understood that Winslow was to have the command of the troops designed against Crown Point. The governor's influence however prevailed, and the assembly concurred in all the military measures which he proposed.

In April, news arrived from Great Britain, that the events of the last year were viewed in a very different light there, from what they were in America: That the affair at lake George was considered by the British ministry, as a very important victory; and Johnson's conduct as highly deserving and meritorious: That he was honoured with the dignity of a Baronet; and that five thousand pounds sterling had been voted to him by the house of commons as a further reward for his services: That his engineer was promoted to the rank of a major in the British service, and his secretary to the command of a company. It was also said that general Shirley's conduct had been entirely disapproved by his majesty, that he was removed from the command of the troops; and that the earl of

London was appointed general and commander in chief of all the forces in North America: And that the favorite object with the British ministry, was the reduction of Crown Point.

At this time, general Shirley had not received the king's orders, with respect to the late plan of operations; but was much engaged in carrying it into effect. On these venth of May, he arrived at Albany, and immediately began his preparations for the campaign. On the twenty fifth, he held a council of war, consisting of lieutenant colonel Gage and Burton, majors Chapman and Sparks, Sir John St. Clair, and Montresor, the chief engineer. With regard to the Niagara expedition, he informed the council that upon lake Ontario, there was a naval force of two vessels of ten carriage guns each; two row-gallies of ten swivels each; and that he had issued orders for building three other vessels, one of eighteen, one of sixteen, and one of twelve carriage guns. Besides which, there would be on that lake, two hundred and fifty whale boats, each capable of carrying sixteen men. With respect to the expedition against Crown Point, the council were told, that the several colonies had voted to raise eight thousand and eight hundred men, including those which were in garrison at the forts Edward and William Henry. The council were of opinion that thirteen hundred men ought to be posted at Oswego, and four hundred at the different posts between that place and Schenectady. That two British regiments, with the colony troops, would be sufficient for the reduction of Crown Point; and that a fort ought immediately to be

built at South Bay, the place where Dieskau had landed his troops.

HAVING formed the military plans and put all the northern colonies in motion to execute them, Shirley was deeply engaged in the business till the arrival of major general Webb, on June the seventh. It was now certain that general Shirley was superseded in the command. On June the fifteenth, major general Abercrombie landed at New York, and in ten days repaired to Albany, and took upon himself the command of the army. Shirley immediately delivered to him the returns of the army and stores; and gave him the necessary information respecting the plans of the campaign, the state of the American colonies and troops, and the situation of their forts and public affairs; and continued no longer at Albany than was necessary to compleat this business. General Abercrombie was of a family much distinguished in Scotland; had risen in the army by a regular course of service, and acted with reputation under the duke of Cumberland, in subduing the rebellion in the year forty six. He was now advanced in age, and but little acquainted with the affairs of the American colonies. When he took the command of the troops, they consisted of two regiments which had served under Braddock, two battalions raised in America, two British regiments which he brought over with him, four independent companies which had been for many years maintained in New York, four companies raised by the province of North Carolina, and the large body of provincial troops which had been raised for the expedition against Crown Point.

An important part of the service respecting the western campaign, was the direction of the batteaux ; by these, the troops, provisions and military stores were to be transported from Schenectady to Oswego. Shirley, fully apprehensive of the importance of this service from the sufferings of the former year, had enlisted forty companies of fifty men each for this business. Colonel Broadstreet, an active, judicious officer, well acquainted with the nature of the business, had been appointed to the command. In returning from Oswego with three hundred of his men, as he was stemming the stream of the Onondago river, with his batteaux formed into three divisions, on July the third, the Indian war-whoop resounded from the north shore, and he was attacked in an instant by a general discharge of musquetry. With perfect coolness, Broadstreet landed his men on the other bank, took possession of an island from which he could annoy the enemy, followed them to every place where they had passed the river, and fell upon them sword in hand wherever he could find them in any numbers. Several actions took place along the banks and islands of the river ; the engagement continued for three hours, and in the event, the enemy were every where repulsed and dispersed. In this contest the force of the enemy amounted to seven hundred men. Thirty of the batteaux men were killed, and as many wounded. The French and Indians lost one hundred and twenty, and about seventy of them were made prisoners.

On the eleventh of July, Broadstreet arrived at Schenectady. The next day he repaired to

Albany, to lay before general Abercrombie, the intelligence he had obtained, of the danger which threatened Oswego. The prisoners he had taken in his late actions, informed him that twelve hundred of the enemy were encamped on lake Ontario, at but a little distance from the English forts; that they were provided with artillery, and all other implements necessary for a siege; and that they meant to commence their operations, as soon as some expected reinforcements should arrive. Upon this intelligence orders were issued to general Webb, to hold himself in readiness to march for the defence of Oswego, with the forty fourth British regiment. While the British generals were thus speculating about Oswego, Lord Loudon who had been appointed to the chief command in North America, arrived at New York, July the twenty third, and reached his head quarters at Albany, the twenty ninth; and immediately took upon himself the command of the troops. Amidst the parade and ceremonies attending the arrival and reception of the British generals, the affairs of the war were not attended to; and it was not till the twelfth of August that Webb set out with his regiment from Albany for the preservation of Oswego. He had proceeded on his journey but a few days, when he received news that Oswego was actually besieged by a large army of French and Indians. Alarmed for his own safety, he made a forced march to the Oneida carrying place; when he immediately began to throw up works for his own defence, and to fall the trees in Wood Creek, to prevent the enemy from approaching his own camp.

While the British generals in America were thus spending their time to no purpose, M. Montcalm, the commander of the troops in Canada, was deeply engaged in a scheme of the highest importance to the French interest; that of securing to themselves the extensive dominion of the Great Lakes, which they well knew would command the interest and influence of all the Indian nations. As the first step to effect these measures, he set forward an expedition against Oswego, while the British generals were looking for him at Tyconderoga. He assembled a body of troops, consisting of thirteen hundred regulars, seventeen hundred Canadians, and a considerable number of Indians. With this force he proceeded from fort Frontenac, by the way of lake Ontario. The first step taken by Montcalm, was to block up Oswego by water, by two large armed vessels; the next, was to post a strong body of Canadians and Indians on the road between Albany and the forts, to cut off all communications of succour and intelligence. Having brought up his artillery and stores, he had every thing in readiness to open his trenches before fort Ontario, by the twelfth of August. The forts were in no condition to make a defence against artillery or regular approaches. On the thirteenth, colonel Mercer was killed by a cannon ball; and the next day the garrison proposed a capitulation. The terms were, that they should surrender prisoners of war, be exempted from plunder, treated with humanity, and be conducted to Montreal. Unfortunately for several of the prisoners, and for the honor of Montcalm, the terms of the capitulation were not fulfilled by

him. Several of the British officers, and soldiers were insulted, robbed, and massacred by the Indians. Most of the sick were barbarously scalped in the hospital; and to compleat the scene of falshood and barbarity, the French general delivered up to the Indians above twenty of the garrison, in the room of the same number that they had lost during the siege. In all probability these unhappy victims were put to death, according to the execrable Indian custom of torturing and burning. Having succeeded in the enterprise with scarcely any loss, Montcalm demolished the two forts at Oswego, and returned with his army to fort Frontenac. In this expedition he had taken fourteen hundred prisoners, one hundred and twenty pieces of artillery, fourteen mortars, with a large quantity of ammunition, warlike stores, and provisions; two sloops, and two hundred batteaux.

While these scenes, disgraceful to the English, were taking place at Oswego, and the French every where conducting their affairs with wisdom and energy, the British generals at Albany appeared to be either wholly unacquainted with the business, or disinclined to the dangers and hardships of an American, French and Indian war. The force in the vicinity of Albany, under the command of the earl of Loudon, amounted to two thousand and six hundred regular troops, and eight thousand provincials, well clothed, fed and armed; and provided with the necessary artillery and implements of war. General Winslow for several months had been at lake George, with an army of seven thousand provincial troops, well equip-

ped, and ready to proceed from fort William Henry. From the best accounts, the force of the French at Ticonderoga and Crown Point, did not exceed three thousand men ; and with this force, they did not appear to be in any degree apprehensive of any danger from the English. Nor had they any thing to fear from the British generals, forces, or exertions ; for nothing was attempted or effected. Loudon neither made any attempts, nor gave any orders to his troops to move forward, or molest the enemy on lake Champlain. Loudon had his head quarters at Albany, Winslow lay with the provincial army at lake George, the season passed away, and all that was attempted or performed was to strengthen the forts Edward and William Henry, which Lyman and Johnson had built the year before.

A party, in some of the colonies, had been extremely active in censuring the measures of general Shirley, and in effecting his removal from the command. They had already discovered that he was much better acquainted with American affairs, more judicious in his plans, and more active in executing them, than the British generals who had succeeded him. If Shirley had attempted too much, they had attempted nothing ; and if Braddock had lost his life and army by his rashness and confidence, Loudon and his officers had neither ventured, effected, or lost any thing : And it was already apparent, either that they were altogether unacquainted with the nature of that kind of war, which must be pursued on the American frontiers ; or else they were disinclined to venture

amidst the fatigues, dangers, and surprises, to which it was unavoidably exposed. But whatever was the cause, it was every where known that the whole body of British and provincial troops, through the whole of this campaign, had been employed to no manner of purpose. Disappointment and disgrace had attended every British measure; it was the French, with M. Montcalm, their general, that had acted with vigor and success.

CHAPTER XII.

WAR. *Progress and events of the war in the years* 1757 *and* 1758. *Loudon's preparations for the campaign. Montcalm's measures with the Indians. Designs upon the English. Putnam's account of Webb's proceedings. Conquest of Fort William Henry. Savage massacre of the prisoners. Reflections on Montcalm's conduct. Result of the campaign in* 1757. *Change of the British councils and ministry. Conquest of Louisbourg. Abercrombie's attempt and defeat at Ticonderoga. Capture of Fort Frontenac by Broadstreet.... Of Fort Du Quesne by Forbes. Amherst assumes the command.*

1757 THE Earl of Loudon had been an officer of much reputation in Scotland. In the rebellion in that country, in the year one thousand seven hundred and forty five, he commanded a regiment of Highlanders at Inverness; was very useful in directing the councils and conduct of the clans, who had taken arms in behalf of the king; vigilant and successful in restraining and intimidating the disaffected chiefs, who had not openly joined in the rebellion; loyal, active, and persevering, he had rendered very useful services to his majesty, in the high lands of North Britain. From such services and experience, it was supposed that he was well qualified to have the direction of the war in North America.

HAVING assumed the command of all the

forces in North America, he was employed during the winter in effecting his purposes with the American governments, to raise a large body of troops for the ensuing campaign. His Lordship had not the full confidence of the American assemblies ; but such was their conviction of the necessity of more vigorous measures in carrying on the war, that they every where raised the number of troops which were required of them, and made all the preparations which were expected : But as the British general had taken the direction of all the proposed expeditions under his own management, neither the American governors or assemblies, were employed in forming plans, or concerting measures for their own defence, or to annoy the enemy. The time was now come, when it was thought by the British ministry that it was not best for their colonies to learn their own strength, or to depend upon their own councils ; but to look to British officers and troops for the one, and to the British ministry for the other.

From the first commencement of hostilities, the reduction of Crown Point had been the favorite object with the colonies, and with the crown. It was determined in the British councils of this year, to vary and extend their operations ; not to carry their expeditions against Crown Point, but to make a vigorous attempt against Louisbourg. In pursuance of this plan, Admiral Holbourn arrived at Halifax, on July the ninth, with fifteen ships of the line, and a large number of transports. Lord Loudon had collected a body of six thousand troops, and embarked from New York, to take the command

of the army designed for Louisbourg. When he arrived with his troops at Halifax, he found himself at the head of twelve thousand men; well officered, disciplined, and provided with every thing necessary for the expedition. While the army lay at Halifax, preparing to embark, intelligence was received that M. de la Mothe had sailed from Brest, in the month of May, and was arrived safe at Louisbourg, with a large fleet of ships of war, and transports. The intelligence was soon confirmed, with more particular information; that there were seventeen ships of the line and three frigates moored in the harbor; a land army of six thousand regular troops, three thousand natives, and thirteen hundred Indians; that the place was well supplied with ammunition, provisions, and every kind of military stores; and that the enemy were expecting and desirous of a visit from the English fleet and army. This intelligence put an end to Loudon's deliberations. No attempt was made to proceed in the expedition, it was foreseen that the consequence of a defeat would have been greatly injurious to the British affairs in America. And neither their admirals or generals had as yet acquired that determined resolution and perseverance, which were necessary to give success to the American contest.

But whatever was the case with the British commanders, the French generals perfectly well understood their business. Montcalm, who had the command of the troops in Canada, was an able and experienced officer. He had served with much reputation in the French armies in Italy and Bohemia, and had met with much

success in America. The conquest of Oswego had raised his fame among the Indians, and given him the command of almost all their tribes and commerce. He pursued the advantages he had obtained with much discretion and address. The English had destroyed their forts at the great carrying place, and in other parts of the Indian country, to prevent their falling into the hands of the French; and the whole country of the six nations was abandoned to the enemy. The French commanders availed themselves of all the errors and defeats of the English. They carried fire and sword into the Indian country; and by rewards, promises, and threatenings, were incessantly endeavoring to draw over the six nations to their interest; and they had the most flattering prospects of success. These nations alone, of all the Indian tribes, had been sincere and faithful in their attachment to the English. The forts, and communications with their tribes were cut off, their country was abandoned to the incursions and ravages of their enemies, and their English allies had met with little else than disappointment and defeat in all their expeditions against the French. In such circumstances it required all the ability and address of sir William Johnson, to prevent their deserting the English cause and interest.

By the departure of lord Loudon from New York, the command of the British forces had devolved on major general Webb. Montcalm saw that a favorable opportunity was presented to attack the English on lake George. He had made an attempt on the twentieth of March, to carry fort William Henry by surprise; but his

troops had been defeated by the vigilance and bravery of the garrison. Several of the enemy were slain, but they did not return till they had burned two sloops, & one on the stocks ; almost all the batteaux, three store houses, all the huts of the rangers, and every thing that was not under the command of the fort. At the opening of the spring, a detachment of near four hundred men went down the lake under the command of colonel John Parker, in batteaux and whale boats, to attempt the enemy's advanced guard at Ticonderoga. Parker was deceived in his intelligence, decoyed into the midst of a large but concealed party of the enemy, and attacked with such impetuosity and success, that but two officers and seventy privates escaped. Encouraged by this success, and the departure of lord Loudon to Halifax, and wishing to retrieve the misfortune of the defeat at fort William Henry, Montcalm drew his forces together and made preparation to lay siege to that place. For this purpose he assembled at Crown Point and Ticonderoga, a large body of regular troops, Canadians, and Indians, amounting to near ten thousand men.

One of the great difficulties attending the American campaigns, was the article of intelligence ; to procure information of the strength and movements of the enemy. The most that was obtained, was generally by means of scouting and ranging parties. Some of the officers of the New Hampshire troops, were much distinguished for their abilities and exploits in services of this kind. To three of them, Robert Rogers, John Stark, and William Stark, ranging

companies were assigned. At the desire of lord Loudon, they were continued in the service during the winter as well as summer. They were so eminently useful in ranging the woods, procuring intelligence, and skirmishing with the advanced parties of the enemy, that they were put in the pay of the crown & after the war were allowed half pay on the British establishment. †

Among the officers of the ranging companies, major Putnam, whose name became so much celebrated in the American war, was at that time much distinguished for his activity and bravery. General Webb had formed a high idea of his military character and enterprise, and had assigned to him the command of a party of two hundred men, who had been selected to escort Webb from fort Edward to William Henry. Webb wished to examine the state of the fortifications at lake George, and to procure intelligence of the strength of the enemy at Ticonderoga and Crown Point. Several attempts had been made in the night by major Rogers, who was then at the head of the ranging companies, but they had not succeeded. Putnam proposed to proceed in the day time, take with him but five men, land at the Northwest bay, send back his boats, and tarry himself till he could discover the state of the enemy's troops and fortifications at Ticonderoga. Webb thought this would be too dangerous an experiment, but permitted him to proceed with eighteen men in three whale boats. Putnam set out with his volunteers, but before he arrived at the Northwest bay, he discovered a body of

† Belknap's Hist. New Hampshire, vol. 2. p. 297.

men on one of the islands in the lake. Leaving two of his boats to fish at a distance, that they might not occasion any alarm, he returned himself with the information. The general saw him rowing back with great velocity in a single boat, and concluded that the other two had been captured; he sent orders to Putnam to leave his men in the boat, and come ashore alone. Putnam informed him of the discovery he had made, and urged the necessity of returning immediately to make further discoveries, and bring off the boats. Webb reluctantly consented, and Putnam hastened to secure his boats; having joined his men, he pressed further on till he discovered a large army in motion, and was seen by the enemy. Several of their canoes pursued him, and though nearly surrounded at times, by the most vigorous exertions he escaped. On his return, he gave to general Webb, a minute account of all that he had seen and added that the army of the enemy must undoubtedly be designed against fort William Henry. General Webb enjoined the most absolute silence upon the subject, and directed him to put his men under an oath of secrecy, and prepare immediately to return to the head quarters of the army at fort Edward. Wishing to be engaged in surprising the enemy on the lake, Putnam made this remark, "He hoped his excellency did not intend to neglect so fair an opportunity of giving battle, should the enemy presume to land." "What do you think we should do here," replied the general. The next day, Webb returned to fort Edward, escorted by Putnam; and the day after, colonel

Monro was ordered with his regiment to reinforce the garrison at lake George. Aware of the siege that was about to commence, Putnam advised colonel Monro not to carry his costly baggage & camp equipage ; but Monro, not apprised of the intelligence which had been given to Webb, disregarded the advice and marched on without any apprehension of immediate danger. †

The day after Monro had arrived and taken the command, the lake appeared to be covered with boats ; and a large army of French and Indians were swiftly approaching towards the fort. Montcalm effected a landing with but little opposition, and immediately began the siege. A small party of the garrison had a skirmish with some of the advanced parties of the enemy, and some that had been taken prisoners, had been murdered and scalped by the Indians with circumstances of the most inhuman barbarity. Montcalm wished to avail himself of this event, and endeavoured to pursuade the garrison to an immediate surrender. On the day in which he invested the place, he sent a letter to colonel Monro, stating that he thought himself bound in humanity to urge him to surrender before any of the Indians were slain, & their savage temper should be further inflamed by a resistance which could not be availing. " A detachment of your garrison, says ' he, has lately experienced their cruelty ; I ' have it yet in my power to restrain them, and ' oblige them to observe a capitulation, as none

† Humphrey's life of Putnam, p. 37.

'of them hitherto are killed. Your persisting 'in the defence of your fort, can only retard its 'fate a few days, and must of necessity expose 'an unfortunate garrison, who can possi- 'bly receive no relief, considering the precau- 'tions I have taken to prevent it. I demand a 'decisive answer, for which purpose I have 'sent the Sieur Funtbrune, one of my aides- 'du camp. You may credit what he will in- 'form you of, from Montcalm."

Colonel Monro was an officer of distinguished honor and fortitude. He returned a very proper and spirited answer, announcing to the French general, that as the fort had been entrusted to him, his honor and his duty would lead him to defend it to the last extremity. Aware of his danger, he sent one express after another to Webb, informing him of his own situation, and the strength of the enemy, with the most pressing solicitations for immediate succour. The garrison consisted of about two thousand five hundred men; the whole of which, animated by the hope and expectation of receiving relief from fort Edward, made a gallant defence.

General Webb had an army at fort Edward of four thousand men, which had been considerably augmented by the troops under the command of Sir William Johnson, and by the militia. It is generally supposed that he had private intelligence of Montcalm's designs and motions; and it was in his power to have called in a large number of provincial troops from New York and New England; and these were in fact the best soldiers in a war with the

Canadians and Indians. But he neither seemed to have any apprehension of danger, or to make any exertions to prevent or avoid it ; but remained rather indifferent or passive amidst all the alarming scenes that were taking place. Such however were the representations from Monro, and the solicitations in his own camp, that on the eighth or ninth day of the siege, general Johnson was suffered to march with all the provincial regiments, the militia, and Putnam's rangers. They had not proceeded three miles before the order was countermanded, and the troops directed to return. Webb then wrote to Monro that he could not afford him any relief, and advised him to surrender on the best terms that he could obtain.

Montcalm was provided with a good train of artillery, and had been accelerating his approaches to the fort with all the expedition in his power. When Johnson began his march, some of the Indians who were employed as runners, saw the movement and gave the information to Montcalm, that a large force was approaching towards the lake. Being questioned respecting the numbers, they answered in their figurative manner, " If you can count the leaves of the trees, you can count them, &c." In consequence of this intelligence, the operations of the siege were suspended ; and Montcalm was preparing to give battle, or retreat, as circumstances might dictate. Another Indian runner put an end to the apprehensions of the French, by the welcome tidings that the English army had returned to fort Edward.* From the

* Putnam's Life, p. 38.

return of this detachment, Montcalm found that he had nothing to fear from the British army at fort Edward, and prosecuted the siege with fresh vigor, and the most confirmed hopes. Monroe and his garrison defended themselves with much spirit and resolution till their works were much injured, their ammunition nearly expended, and the enemy had made near approaches to the fort. Still expecting to be relieved by general Webb, Monroe had refused all terms of capitulation from the third to the ninth of August. Montcalm had intercepted the letter which Webb had wrote to Monroe advising him to surrender.* This letter was sent into the fort to Monroe, with further proposals for a capitulation. Every circumstance now served to convince Monroe that it would be impossible for him to preserve the place, or to hold out much

* Fort-Edward, August 4, 12 at Nooh.

SIR, "I am directed by General Webb to acknowledge the receipt of three of your letters; bearing date nine o'clock yesterday morning, and one about six in the evening, by two rangers, which are the only men that have got in here, except two yesterday morning with your first, acquainting him that the enemy were in sight. He has ordered me to acquaint you, he does not think it prudent, (as you know his strength at this place) to attempt a junction, or to assist you, till reinforced by the militia of the colonies, for the immediate march of which repeated expresses have been sent. One of our scouts brought in a Canadian prisoner last night, from the investing party, which is very large, and have possessed all the grounds five miles on this side of Fort William Henry. The number of the enemy is very considerable, the prisoners say eleven thousand, and have a large train of artillery, with mortars, and were to open their batteries this day. The general thought proper to send you this intelligence, that in case he should be so unfortunate, from the delays of the militia, not to have it in his power to give you timely assistance, you might be able to make the best terms left in your power. The bearer is a sergeant of the Connecticut forces, and if he is happy enough to get in will bring advices from you. We keep continual scouts going, to endeavor to get in, or bring intelligence from you. I am, sir, with the heartiest and most anxious wishes for your welfare, your most obedient humble servant.

G. BARTMAM, Aid-de-Camp.

To Col. Monroe, or officer commanding
at Fort William Henry.

longer against the French army; and that he must surrender on the best terms that he could obtain.

Articles of capitulation were agreed upon and signed by Montcalm and Monroe. It was stipulated that the garrison of fort William Henry, and the troops in the retrenched camp should march out with their arms, the baggage of the officers and soldiers, and all the usual necessaries of war; and be escorted to fort Edward, by a detachment of French troops, and interpreters attached to the savages. That the gate of the fort should be delivered to the troops of the most christian king, immediately after signing the capitulation; and the retrenched camp, on the departure of the British troops: That all the warlike stores, and every thing except the effects of the officers and soldiers should be delivered to the French troops. The garrison was not to serve against France or her allies during the term of eighteen months. Such of the French as had been taken prisoners since the commencement of the war, were to be delivered at Carillon, (Ticonderoga) in the space of three months; in return for which, an equal number of the garrison of fort William Henry should be capacitated to serve in the English armies. The sick and wounded were to remain under the protection of Montcalm, and were to be treated with humanity and tenderness, and returned as soon as they were recovered. An officer was to remain as an hostage till the safe return of the escort that was to be sent to guard the British troops to fort Edward: And as a testimony of his esteem and respect for colonel

Monroe and his garrison, on account of their gallant defence, Montcalm was to return one cannon, a six pounder.

The articles of capitulation were signed August the ninth, and no further difficulties were expected. But no sooner had the British troops marched out of their camp than a scene of perfidy and barbarity took place, that had scarcely ever before been acted among the most brutal of barbarians and robbers. In avowed contempt and violation of the articles of capitulation, the Indians attached to the French army fell upon the defenceless garrison, plundered, wounded, and murdered whatever stood in their way. The following is the account of Captain Jonathan Carver, of the Connecticut troops, and one of the garrison at that time. "The morning after 'the capitulation was signed, as soon as day 'broke, the whole garrison, now consisting of 'about two thousand men, besides women and 'children, were drawn up within the lines, and 'on the point of marching off, when great num-'bers of the Indians gathered about, and began 'to plunder. We were at first in hopes that this was their only view, and suffered them t' 'proceed without opposition. Indeed it w' 'not in our power to make any, had we b' 'so inclined; for though we were permitte' 'carry off our arms, yet we were not allo' 'single round of ammunition. In these 'however we were disappointed; for p' 'some of them began to attack the' 'wounded, when such as were not abl' 'into the ranks, notwithstanding they 'ored to avert the fury of their enemie' shrieks or groans, were soon dispat'

'HERE we were fully in expectation that the 'disturbance would have concluded; and our 'little army began to move; but in a short 'time we saw the front division driven back; 'and discovered that we were entirely encircled 'by the savages. We expected every moment 'that the guard, which the French by the arti- 'cles of capitulation, had agreed to allow us, 'would have arrived, and put an end to our ap- 'prehensions; but none appeared. The In- 'dians now began to strip every one without 'exception, of their arms and clothes, and those 'who made the least resistance felt the weight 'of their tomahawks.

'I happened to be in the rear division, but 'it was not long before I shared the fate of my 'companions. Three or four of the savages 'laid hold of me, and whilst some held their 'weapons over my head, the others soon disro- 'bed me of my coat, waistcoat, hat and buckles, 'omitting not to take from me what money I 'had in my pocket. As this was transacted close by the passage that led from the lines on o the plain, near which a French centinel was sted, I ran to him and claimed his protec- ; but he only called me an English dog, thrust me with violence back again into nidst of the Indians.

ow endeavored to join a body of our that were crowded together at some ; but innumerable were the blows e made at me with weapons as I pas- uckily however the savages were so ther, that they could not strike at endangering each other. Notwith-

'standing which, one of them found means to 'make a thrust at me with a spear, which grazed 'my side, and from another I received a wound, 'with the same kind of weapon, in my ancle. 'At length I gained the spot where my coun- 'trymen stood, and forced myself into the midst 'of them. But before I got thus far out of the 'hands of the Indians, the collar and wristbands 'of my shirt were all that remained of it, and 'my flesh was scratched and torn in many pla- 'ces by their savage gripes.

'By this time the war whoop was given, and 'the Indians began to murder those that were 'nearest to them without distinction. It is not 'in the power of words to give any tolera- 'idea of the horrid scene that now ensue 'men, women, and children were dispatched 'the most wanton and cruel manner, and im- 'mediately scalped. Many of these savages 'drank the blood of their victims, as it flowed warm from the fatal wound.

'We now perceived, though too late to avail 'us, that we were to expect no relief from the 'French; and that, contrary to the agreement 'they had so lately signed, to allow us a suffi- 'cient force to protect us from these insults, 'they tacitly permitted them; for I could plain- 'ly perceive the French officers walking about 'at some distance, discoursing with apparent 'unconcern. * * * * *

'As the circle in which I stood enclosed, by 'this time was much thinned, and death seemed 'to be approaching with hasty strides, it was 'proposed by some of the most resolute to make 'one vigorous effort, and endeavor to force our

'way through the savages, the only probable 'method of preserving our lives that now re-'mained. This, however desperate, was re-'solved on, and about twenty of us sprung at 'once into the midst of them.

'In a moment we were all separated, and 'what was the fate of my companions I could 'not learn till some months after, when I found 'that only six or seven of them effected their 'design. Intent only on my own hazardous 'situation, I endeavored to make my way thro' 'my savage enemies in the best manner possi-'ble. And I have often been astonished since, 'when I have recollected with what composure 'I took, as I did, every necessary step for my 'preservation. Some I overturned, being at that 'time young and athletic, and others I passed 'by, dexterously avoiding their weapons; till 'at last two very stout chiefs, of the most sav-'age tribes, as I could distinguish by their 'dress, whose strength I could not resist, laid 'hold of me by each arm, and began to force 'me through the crowd.

'I now resigned myself to my fate, not 'doubting but that they intended to dispatch me, 'and then satiate their vengeance with my 'blood, as I found they were hurrying me to-'wards a retired swamp that lay at some dis-'tance. But before we had got many yards, an 'English gentleman of some distinction, as I 'could discover by his breeches, the only cov-'ering he had on, which were of fine scarlet 'velvet, rushed close by us. One of the In-'dians instantly relinquished his hold, and 'springing on this new object, endeavored to

'seize him as his prey; but the gentleman be-
'ing strong, threw him on the ground, and
'would probably have got away, had not he
'who held my other arm, quitted me to assist
'his brother. I seized the opportunity, and
'hastened away to join another party of English
'troops that were yet unbroken, and stood in a
'body at some distance. But before I had ta-
'ken many steps, I hastily cast my eye towards
'the gentleman, and saw the Indian's tomahawk
'gash into his back and heard him utter his last
'groan; this added both to my speed and des-
'peration.

'I had left this shocking scene but a few
'yards, when a fine boy about twelve years of
'age, that had hitherto escaped, came up to me
'and begged that I would let him lay hold of
'me, so that he might stand some chance of
'getting out of the hands of the savages. I told
'him that I would give him every assistance in
'my power, and to this purpose bid him lay
'hold; but in a few moments he was torn from
'my side, and by his shrieks I judge was soon
'demolished. I could not help forgetting my
'own cares for a minute, to lament the fate of
'so young a sufferer; but it was utterly im-
'possible for me to take any methods to pre-
'vent it.

'I now got once more into the midst of
'friends, but we were unable to afford each oth-
'er any succour. As this was the division that
'had advanced the farthest from the fort, I tho',
'there might be a possibility (though but a bare
'one) of my forcing my way through the outer
'ranks of the Indians, and getting to a neigh-

'boring wood, which I perceived at some dis-
'tance. I was still encouraged to hope by the
'almost miraculous preservation I had already
'experienced. Nor were my hopes in vain, or
'the efforts I made ineffectual. Suffice it to
'say, that I reached the wood; but by the time
'I had penetrated a little way into it, my breath
'was so exhausted that I threw myself into a
'brake, and lay for some minutes apparently at
'the last gasp. At length I recovered the pow-
'er of respiration; but my apprehensions re-
'turned with all their former force, when I saw
'several savages pass by, probably in pursuit
'of me, at no very great distance. In this sit-
'uation I knew not whether it was better to
'proceed, or endeavor to conceal myself where
'I lay, till night came on; fearing, however,
'that they would return the same way, I thought
'it most prudent to get further from the dread-
'ful scene of my distresses. Accordingly,
'striking into another part of the wood, I has-
'tened on as fast as the briars and the loss of
'one of my shoes would permit me; and after
'a slow progress of some hours, gained a hill
'that overlooked the plain which I had just left,
'from whence I could discern that the bloody
'storm still raged with unabated fury.

'But not to tire my readers, I shall only
'add, that after passing three days without sub-
'sistence, and enduring the severity of the cold
'dews for three nights, I at length reached fort
'Edward; where with proper care my body
'soon recovered its wonted strength, and my
'mind, as far as the recollection of the late mel-
'ancholy events would permit, its usual com-
'posure.

'It was computed that fifteen hundred per-
'sons were killed or made prisoners by these
'savages during this fatal day. Many of the
'latter were carried off by them and never re-
'turned. A few, through favorable accidents,
'found their way back to their native country,
'after having experienced a long and severe
'captivity.

'The brave colonel Monroe had hastened a-
'way, soon after the confusion began, to the
'French camp to endeavor to procure the guard
'agreed on by the stipulation; but his application
'proving ineffectual, he remained there till gen-
'eral Webb sent a party of troops to demand
'and protect him back to fort Edward."*

The day after this awful tragedy had been acted, major Putnam was dispatched with his rangers to watch the motions of the enemy. He came to the shore of lake George when the rear of the enemy was scarcely beyond the reach of musquet shot. The prospect was awful and horrid in the highest degree. The fort was demolished, the barracks, outhouses and buildings, were one heap of ruins; the cannon, stores, boats and vessels, were carried away. The fires were still burning, the smoke and stench offensive and suffocating. Innumerable fragments of human sculls and bones, and carcases half consumed, were still frying and broiling in the decaying fires. Dead bodies mangled with scalping knives and tomahawks, in all the wantonness of Indian fierceness and barbarity, were every where to be seen. More

* Carver's Travels, p. 181—186.

than one hundred women inhumanly stabbed and butchered, lay naked on the ground with their bowels torn out, and still weltering in their gore. In some, their throats were cut; in others, their brains were oozing out, where the hatchet had cleaved their heads; and in others, the hair and the scalp had been torn off, and nothing was to be seen but the bloody skull. Devastation, barbarity, and horror, every where appeared; and presented a spectacle too diabolical and awful to be endured or described.*

It is difficult to believe that the French officers had contemplated any such proceedings. As soon as the capitulation was signed, St. Luke le Corne, who had much influence among the Indians, sent for colonel Frye, who commanded a part of the Massachusetts troops. Frye had been in Nova Scotia under Winslow, in 1755, and had protected several of the French inhabitants from the fury of the Indians. Le Corne told him that he had observed, and that he well remembered the humanity, that he had shown to his countrymen in Nova Scotia; that he should embrace the present opportunity to express his gratitude, and reward his humanity; and that neither he, nor any of the Massachusetts troops, should receive any insult or injury from any of the Indian tribes. Frye believed in Le Corne's declarations; but during the whole outrage and massacre, Le Corne neither appeared himself, nor sent any party to afford protection, or to moderate the Indian vengeance.†

* Putnam's Life, p. 39.
† Col. Joseph Frye's relation to the Author.

How far it was in Montcalm's power to have prevented this scene of carnage and barbarity, it may not be easy for us to determine. The marquis himself seems to have been a man of humanity and politeness; and it is scarcely possible but that a brave and generous soldier must have beheld such scenes of outrage, with disgust and abhorrence. Nor was it possible but that he must have been aware of the dangerous consequences of violating the public faith, or how much it would effect his own honor and reputation, to have his prisoners surrendered into his power under a solemn treaty of protection, murdered in his presence, and by a part of his own army. The most that candor can say upon this subject, will be, that the European generals were not able to restrain the fierceness and barbarity of their Indian allies; that the savages served with them, not under the promise or expectation of wages, but solely with a view of revenge and plunder; that they claimed these as their right, practice, and custom, from time immemorial; and did not admit that any of the European commanders had any right to restrain, or to interpose in their customs and usages of treating their prisoners. But when all has been said that candor can suggest, or that the customs and habits of the savages can justify or excuse, still it will occur, that the garrison had a promise of protection from Montcalm; that they had surrendered under the faith of this protection; that all the laws of humanity and war required the capitulation to have been held sacred and inviolate; that it was in his power to have protected the garrison by a

guard of French troops ; but that rather than disgust the Indians, he broke every part of the capitulation, violated his own honor, and destroyed the faith of any future promises, by suffering a seduced and defenceless garrison to be plundered and butchered, in the presence and view of his whole army.

EXPECTING to be attacked himself, general Webb had sent on expresses to the provinces for reinforcements. They were every where raised and sent on with great expedition ; but as Montcalm had returned to Ticonderoga, the reinforcements were kept in service but a few weeks : And thus ended the third campaign in America.

WITH an army of more than twenty thousand regular troops, a great number of provincial forces, and a naval power of more than twenty ships of the line, nothing had succeeded. All attempts against the enemy had failed ; and the French, with a much inferior force, had every where gained the advantage. The British ministry did not appear to be sufficiently acquainted with the state of things in America, to form a judicious plan for a campaign in the colonies ; nor did the British generals appear to be enough informed of the nature of a French and Indian war, to carry it on with success. Loudon had returned to New York, and was engaged about the civil affairs of the colonies. Massachusetts had been the most active of all the provinces in raising men and money for the war. In November, Loudon took offence at some of the proceedings of their assembly ; which he construed as implying that an act of their assembly

was necessary to carry into effect an act of the British Parliament for quartering their troops. In an hour of resentment he wrote to governor Pownall, November 15, 1757. "I have order-'ed the messenger to wait but forty eight hours 'in Boston; and if, upon his return, I find 'things not settled, I will instantly order into 'Boston the three battalions from New York, 'Long Island, and Connecticut, and if more are 'wanted, I have two in the Jersies at hand, be-'sides three in Pennsylvania." The return not being agreeable to his lordship's feeling, he gave orders that the troops should march. The matter being properly explained, his lordship wrote again, December 26th, "As I can now 'depend upon the assembly's making the point 'of quarters easy in all time coming, I have 'countermanded the march of the troops."* While Loudon was engaged in such exploits, Webb was safe at fort Edward; towards which the enemy could not approach with much force, during the winter. The French only were in a state of activity and enjoyment: Instead of proving distressing or mortifying to them, the war had served to enlarge the boundaries of Canada, to fill it with prisoners and scalps, with private plunder, with public stores, arms, provisions, and other trophies of triumph.

1758. The misfortunes and disgraces which had attended the war for three campaigns had been the occasion of ridicule and triumph to the French, and had spread the spirit of jealousy and discontent in every part of Great Britain,

* Gordon's Hist. American War, Vol. 1. p. 96.

and her American colonies. The people in both countries became loud and clamorous in their complaints and censures of the British ministry and generals ; and it was become apparent that the public confidence was withdrawn from the men who had hitherto directed the affairs of the war. The British nation was alarmed with the prospect, and the British court found it necessary to change her councils. A new ministry was formed, and the celebrated WILLIAM PITT was appointed one of the secretaries of state. Public confidence seemed to rise from the grave, the national spirit was roused up, and the people every where expecting much from the spirit and virtues, were eager and active to support the measures of their favorite patriot and statesman. The reduction of the French, and the increasing prosperity of the English colonies, had been the avowed objects in all his speeches and proposals ; the universal expectation was, that he would now employ the national force in energetic and active services.

THE plan which the new minister formed for the ensuing campaign in America, was to attack the French in various parts of the country at the same time. Twelve thousand men were destined to attempt the conquest of Louisbourg, on the Island of Cape Breton. Sixteen or seventeen thousand men to cross lake George, and make a vigorous attempt upon the forts at Ticonderoga and Crown Point. Eight thousand were to proceed to fort Du Quesne on the Ohio, and invade the French forts and settlements in that part of the country. And all the

American colonies were called upon, to raise as many troops, and to make all the exertions in their power.

The reduction of Louisbourg and the island of Cape Breton being an object of immediate consideration, was undertaken with much spirit and dispatch. Lord Loudon had returned to England, and was no longer employed in the affairs of the colonies. The expedition was put under the command of major general Amherst, assisted by the brigadier generals, Wolfe, Whitmore, and Lawrence. The naval force was put under the command of admiral Boscawen, who sailed early in the spring with the fleet and forces for America. The whole armament collected at Halifax in Nova Scotia, and consisted of one hundred and fifty seven sail. On May the twenty eighth the fleet sailed from Halifax, and on the second of June, part of the transports anchored in Gabarous bay, about seven miles to the westward of Louisbourg. On the eighth the troops effected their landing under the command of the able and spirited general Wolfe, and in a few days compleatly invested the city.

Louisbourg had a garrison of two thousand five hundred regular troops, three hundred militia, and was afterwards reinforced by three hundred and fifty Canadians, including threescore Indians. The harbor was secured by six ships of the line, and five frigates; the whole under the command of the cheveleur Drucour. With much expence and labor, the governor had been preparing for a siege. Amherst made his approaches with great circumspection,

securing his camp with redoubts and epaulments from the insults of the Canadians and Indians; of whom he was informed there were very considerable bodies on the island watching for an opportunity to surprise some part of his camp. Wolfe conducted with all that fire, impetuosity and discretion, with which his name and character have since been distinguished and immortalised. Under the direction of these excellent commanders the siege was carried on with so much caution and vigor that the French ships of war were soon destroyed, and the garrison obliged to surrender as prisoners of war on the twenty sixth of July. Lord Rollo soon after effected the reduction of the island St. John, which lies in the gulph of St. Lawrence. This island contained above four thousand inhabitants and abounded in black cattle and corn.

While Amherst was engaged in the expedition against Louisbourg, major general Abercrombie was undertaking the reduction of Ticonderoga. Upon the departure of the earl of Loudon to England, the chief command of the troops in America had devolved upon him; and he was directed to open a passage to Canada by reducing the French forts on lake Champlain. In the beginning of July he had got every thing in readiness to proceed. His forces amounted to nearly seven thousand regular troops, and ten thousand provincials. These, with a fine train of artillery, military stores, and provisions, were embarked on lake George, on board of nine hundred batteaux, and one hundred and thirty five whale boats; several pieces of cannon were mounted on rafts to cover their landing. The

next day the troops landed at the place of destination, without any opposition.

The English troops having landed were immediately formed into three columns, and moved forward toward the enemy. The advanced party of the French army consisted of a battalion, which lay encamped behind a breast work of logs. This party, upon the approach of the English army, set fire to their breast work and tents, and abandoned them with precipitation. The English forces continued to advance in regular order, but their route lay through a thick wood, which would not admit of a regular progression by columns; and made it impossible for the troops to preserve their designed arrangement and order. The guides were much embarrassed, and the columns, by crowding upon one another, were in some measure disordered and broken.

Lord Howe was in the front of the centre column, having major Putnam with him. The advanced body of the enemy amounting to about five hundred, who had retreated from the breast work, began a skirmish with the English troops on the left. Attentive to every circumstance that concerned the troops, Howe enquired of Putnam, "what the firing meant." "I kno wnot, said Putnam, but with your lordship's leave, I will go and see." "I will go with you," rejoined the gallant young nobleman. Putnam endeavored to dissuade him, and made this remark, "My Lord, if I am killed, the loss of my life will be of little consequence, but the preservation of yours is of infinite importance to the army." His lordship made this reply,

"Putnam, your life is as dear to you as mine is to me, I am determined to go." One hundred of the van under Putnam, immediately filed off with lord Howe. They soon fell in with the left flank of the enemy's advanced party, and their first fire proved fatal to his lordship. Thus fell this gallant young nobleman, unspeakably regretted by all who knew him.

His manners and his virtues had made him the idol of the army. From his first arrival in America, he had accommodated himself and his regiment to the peculiar nature of the service. He cut his hair short, fashioned his clothing, and divested himself and his regiment of all superfluous baggage, that they might not be entangled by the woods, or be easily captured by the Indians. "Exemplary to the officer, a friend to the soldier, the model of discipline, he had not failed to encounter every hardship and hazard."* Such were his virtues and services that the province of Massachusetts, moved by gratitude erected a monument in Westminster Abbey, as a testimony of the regard and affection which their officers and soldiers bore to his memory.†

Nor was his death without its influence and use. Putnam and the troops which saw him fall, moved on with an animated determination to avenge his death; they cut their way obliquely through the enemy's ranks, and being joined by some other parties, charged so furiously in the rear, that nearly three hundred of the enemy were killed on the spot, and one

* Putnam's Life, p. 54.
† Appendix, No. VII.

hundred and forty eight were made prisoners. In the mean time the English columns, having lost their order in the wood, became embarrassed and perplexed ; and the troops were in danger, and in a few instances had already fired on each other. The general, perceiving their fatigue and disorder, thought it advisable not to spend the night in such a situation, but to march them back to the place where they had landed.

The next day colonel Bradstreet was sent to take possession of the saw mills. With a detachment of one regiment of regular troops, six companies of the royal Americans, the batteau men, and a body of rangers, he took possession of the post without opposition. This post being secured, the general again advanced his army against the enemy

The fort at Ticonderoga was in a situation favorable for defence. On three sides, the fortress was surrounded with water ; on the fourth, nature had secured it with a dangerous morass, which could not be passed without much difficulty. The fort was secured with a breast work eight feet high, planted with artillery. The ground before it was covered with an abattis, or large trees cut and disposed for defence. Much labor had been employed to sharpen, interweave, and project their branches, so that they could not be passed or removed without difficulty and time. The prisoners which had been taken, informed general Abercrombie, that the force of the enemy consisted of eight battalions, with a body of Canadians and Indians, amounting in the whole to six thousand men. That another body of troops of three thousand

men had been detached under the command of M. de Levy, to make a diversion by the way of Mohawk river, and to invade the English settlements in that quarter; but that these troops upon the intelligence of Abercrombie's approach had been recalled, and directed to join the force at Ticonderoga: And that the troops already there, were encamped before the fort, and constantly at work in making formidable entrenchments, which they meant to pursue till the reinforcements should arrive.

ABERCROMBIE wished if possible to take decisive measures to reduce the garrison before the arrival of M. de Levy with his troops, or any other succours should be thrown into the place. It was found that it would be the work of time, to reduce the place by a regular siege; that it could not be done, till they had overcome the difficulties of dragging their battering cannon over grounds almost impassable; till they could make approaches, and erect batteries in places covered with thick woods; that the trees must be cut away, roads be opened and many works erected, before they could invest the place. To gain further information, Abercrombie sent his engineer early the next morning to cross the river opposite to the fort and reconnoitre the enemy's situation. The engineer, upon his return, reported that the entrenchments of the enemy were unfinished; and that it was his opinion, that the place might be attempted with musquetry, with a good prospect of success. Abercrombie depended on the intelligence of his engineer, and concluded to adopt his advice.

HAVING determined upon the measure, the

disposition was made for the attack, and guards placed at the saw mill, and landing place. The army was then put in motion, and it marched on to the assault in regular order, and with an undaunted resolution. The enemy instantly began their defence by a well directed and terrible fire from their artillery. The British sustained the shock without being staggered, and still advanced till they were stopped and entangled by the abattis. Their next attempt was to cut their way through these obstacles with their swords ; but this, they found impossible to effect, with such weapons. Still they persevered in attempting to force a passage, and some of them made their way through all opposition till they mounted the parapet. For more than four hours the troops continued this method of assault, without being able to open a passage to the entrenchment. All this while they were exposed to a heavy and fatal fire from the cannon and musquetry of the enemy ; who were so well covered by their works, as to be exposed to little danger while they kept up an incessant and well directed fire upon their assailants. The general had seen his troops continuing their attack upon the enemy for several hours without any prospect of success, in the midst of a most fatal fire ; he now judged it necessary to order a retreat, and the army returned to their former camp without being pursued or molested by the enemy.

The loss sustained by the enemy in this affair was not great ; and most of those who had fallen were shot through the head, every other part of the body being defended and concealed

by their works. The loss in the English army amounted to eighteen hundred men, killed and wounded; and two thousand and five hundred stand of arms were taken by the French.*

* General Abercrombie's account of his expedition againſt Ticonderoga.

"Camp at Lake George, July 12, 1758.

THE embarkation of the artillery, ſtores and proviſions being compleated on the evening of the 4th inſtant; next morning at break of day the tents were ſtruck, and all the troops, amounting to 6367 regulars, officers, light infantry, and rangers included, and 9024 provincials, including officers and batteau men, embarked in about 900 batteaux, and 135 whale boats, the artillery to cover our landing, being mounted on rafts.

At five in the evening, reached Sabbath Day Points (35 miles down the Lake) where we halted till ten, then got under way again, and proceeded to the landing place (a cove leading to the French advanced guard) which we reached early next morning, the 6th.

Upon our arrival, ſent out a reconnoitring party; and having met with no oppoſition, landed the troops, formed them in four columns, regulars in the centre, and provincials on the flanks, and marched toward the enemy's advanced guard, compoſed of one battalion, poſted on a logged camp, which, upon our approach they deſerted, firſt ſetting fire to their tents, and deſtroying every thing they could; but as their retreat was very precipitate, they left ſeveral things behind, which they had not time either to burn or carry off. In this camp we likewiſe found one priſoner and a dead man.

The army in the foregoing order continued their march through the wood on the weſt ſide, with a deſign to inveſt Ticonderoga, but the wood being very thick, impaſſable with any regularity to ſuch a body of men, and the guides unſkilful, the troops were bewildered, and the columns broke, falling in one upon another.

Lord Howe, at the head of the right centre column, ſupported by the light Infantry, being advanced, fell in with a French party, ſuppoſed to conſiſt of about 400 regulars, and a few Indians, who had likewiſe loſt themſelves in the retreat from the advanced guard; of theſe our flankers killed a great many, and took 148 priſoners, among whom were five officers and three cadets.

But this ſmall ſucceſs coſt us very dear, not as to the loſs of numbers for we had only two officers killed, but as to conſequence, his lordſhip being the firſt man that fell in this ſkirmiſh; and as he was, very deſervedly, univerſally beloved and reſpected throughout the whole army, it is eaſy to conceive the grief and conſternation his untimely fall occaſioned; for my part, I cannot help owning that I felt it moſt heavily, and lament him as ſincerely.

The 7th, the troops being greatly fatigued, by having been one whole night on the water, the following day conſtantly on foot, and the next day under arms, added to their being in want of proviſion, having dropped what they had brought with them, in order to lighten themſelves, it was thought adviſeable to return to the landing place, which we accordingly did about eight that morning.

Every corps which had been engaged on this unfortunate occasion, had behaved with a steady coolness and intrepidity; and suffered very severely. But the heaviest loss fell on the regiment of Highlanders, commanded by lord John Murray; one half of the privates, and twenty five officers of this regiment were either slain upon the spot or desperately wounded.* So heavy and severe a loss seems to have determined the English general to withdraw his army

About eleven in the forenoon, sent off Lieut. Col. Bradstreet, with the 44th regiment, six companies of the first battalion of the royal Americans, the batteau men, and a body of rangers and provincials, to take possession of the Saw Mill, within two miles of Ticonderoga, which he soon effected: as the enemy who were posted there, after destroying the mill and breaking down their bridge, had retired some time before.

Lieutenant Colonel Bradstreet having laid another bridge across, and having sent me notice of his being in possession of that ground, I accordingly marched thither with the troops, and we took up our quarters there that night.

The prisoners we had taken being unanimous in their reports, that the French had eight battalions, some Canadians and colony troops, in all about 6000, encamped before their fort, who were intrenching themselves, and throwing up a breast work, and that they expected a reinforcement of 3000 Canadians, besides Indians, who had been detached under the command of Monsieur de Levy, to make a diversion on the side of the Mohawk river; but upon intelligence of our preparations and near approach, had been repeatedly recalled, and was hourly expected; it was thought most advisable to lose no time in making the attack; wherefore early in the morning of the 8th, I sent Mr. Clerk, the engineer, across the river on the opposite side of the fort, in order to reconnoitre the enemy's intrenchments.

Upon his return, and favourable report of the practicability of carrying those works, if attacked before they were finished, it was agreed to storm them that very day: Accordingly the rangers, light infantry and the right wing of Provincials, were ordered immediately to march and post themselves in a line, out of cannon shot of the intrenchments; the right extending to Lake George, and the left to Lake Champlain, in order that the regular troops, destined for the attack of the intrenchments, might form on their rear.

The Piquets were to begin the attack, sustained by the grenadiers, and by the battalions: the whole were ordered to march up briskly, rush upon the enemy's fire, and not give theirs, until they were within the enemy's breast work.

* Smollet's Hist. of England, Vol. 3, p. 289.

from this scene of carnage and havoc; they reembarked in their batteaux, and returned to their camp at lake George with such expedition, that they regained their former situation the evening after the fatal action.

If general Abercrombie was not blameable, he was at least extremely unfortunate in this fatal affair. The information and advice that he received from his engineer was greatly erroneous and faulty; and it should seem that a little enquiry would have been sufficient to convince the general, that the works at Ticonderoga could

After these orders issued, the whole army, except what had been left at the landing place to cover and guard the batteaux and whale boats, and a Provincial regiment at the Saw Mill, were put in motion, and advanced to Ticonderoga, where they unfortunately found the intrenchments, not only much stronger than had been represented, and the breast work at least eight or nine feet high; but likewise the ground before it covered with felled trees, the branches pointed outwards, which so fatigued and retarded the advancing of the troops, that notwithstanding all their intrepidity and bravery, which I cannot too much commend, we sustained so considerable a loss, without any prospect of better success, that it was no longer prudent to remain before it; and it was therefore judged necessary, for the preservation of the remainder of so many brave men, to prevent a total defeat, that we should make the best retreat possible: Accordingly, after several repeated attacks, which lasted upwards of four hours, under the most disadvantageous circumstances, and with the loss of 464 regulars killed, 29 missing, 1117 wounded; and 87 Provincials killed, 8 missing, and 239 wounded, officers of both included, I retired to the camp we occupied the night before, with the broken remains of several corps, sending away all the wounded to the batteaux, about three miles distance; and early the next morning we arrived there ourselves, embarked, and reached this place the evening of the 6th. Immediately after my return here, I sent the wounded officers and men that could be moved, to Fort Edward and Albany."

The French, in the account which they published at Paris in September, gave a very different but not a probable account of this rencounter. Their own force was stated to consist only of 2800 French, and 450 colony troops, under the marquis de Montcalm; with 400 chosen men under the chevalier de Levy, that had joined them only on the 7th in the evening. The loss of the English is represented at 4000 killed and wounded; that the French lost that day only 12 officers and 92 soldiers, killed; and 248 soldiers wounded. Their loss in the skirmish of the 6th of July, is thus stated, 1 captain and 2 lieutenants killed; 1 captain and 3 lieutenants made prisoners; and 184 Canadians killed or taken: And that the English force consisted of 22,000 militia, and 6000 regular troops.

not be carried by a coup de main. Had he continued the assault, there can be no doubt, but that he would have lost almost the whole of his army. If the assault was rash and precipitate, the retreat seems to bear the marks of unnecessary intimidation and hurry; for it is difficult to conceive what danger there could have been, in commencing a regular siege with troops, who had discovered such courage and resolution as appeared in the assault. We ought however not to be very positive in passing our censures on men and measures, where all the circumstances and motives are but imperfectly known. The censure of mankind almost always follows misfortune. Thus it proved in the present case; the attempt to carry the place by storm, was considered as a rash and imprudent measure; and the retreat was condemned as pusillanimous and unnecessary.

Notwithstanding his defeat and mortification, Abercrombie did not let the season pass away without further attempts in favor of the colonies. Brigadier general Stanwix was sent with a considerable body of provincials, to erect a fort at the carrying place at Oneida; and thus secure a passage on the Mohawk and Onondago rivers to Oswego. This business was properly executed, and that important post secured; a measure which proved greatly beneficial in the ensuing campaigns.

Colonel Bradstreet had projected an expedition against Cadaraqui, or fort Frontenac. This fort was situated on the north side of the river St. Lawrence, just at the point where the river derives its origin at lake Ontario. A-

gainst this fortress, Abercrombie dispatched Bradstreet with three thousand men, chiefly provincials. He marched his troops by land to the waters of lake Ontario, and embarked thence in some sloops and batteaux provided for the purpose, and landed within a mile of fort Frontenac. The enemy had no intelligence or expectation of his approach, and were poorly prepared for defence. The garrison consisted of but one hundred and ten men, with a few Indians; and could do no otherwise than surrender at discretion. The fort itself was not of much strength; but it was valuable on account of the immense quantity of military stores and merchandize, which it contained. Sixty pieces of cannon, sixteen mortars, and a quantity of small arms were found in the fort. What was more valuable, a large quantity of provisions was also captured; these had been deposited at Cadaraqui, for the use of their western garrisons, and Indian allies; to supply the French troops that were gone to the Ohio, against brigadier general Forbes; and for the subsistence of M. de Levy and his troops, on their expedition on the Mohawk river. In addition to all the military stores and provisions there was also an immense quantity of merchandize, for the purpose of trade with the Indians, and to supply their own forts and settlements. Besides the forts and stores, Bradstreet made himself master of all the enemy's shipping on the lakes; these amounted to nine armed vessels, some of which carried eighteen guns. Having carried the fort without any loss of men, Bradstreet, in conformity to the general's orders, destroyed the

works, with all the magazines and stores ; and immediately returned with his men to Oswego, taking with him two of the enemy's vessels.*

NOTHING had yet been done upon the lakes, during the whole course of the war, which had so much affected the French interest as this exploit of colonel Bradstreet at Cadaraqui. Fort Frontenac, by its situation, had the entire command of the origin of the river St. Lawrence. It was the grand magazine of military stores and provisions, for all their western posts and settlements, and for their Indian allies ; it commanded the passage into all the western lakes, and was the grand emporium, where all the savage nations collected to transact their business of trade, and to consult with the French on the affairs of war. The unexpected and total destruction of this place not only alarmed and surprised the French, but it carried dismay and terror to their Indian allies ; who had never seen such a sudden and extensive destruction, carried

* Colonel Bradstreet's Letter to General Amherst, on the reduction of Fort Frontenac.

Oswego, August 31, 1758.

I landed with the troops within a mile of fort Frontenac without opposition, the 25th. The garrison surrendered prisoners of war the 27th, between 7 and 8 in the morning—It was a square fort of 100 yards, the exterior side, and had in it 110 men, some women, children, and Indians; 60 pieces of cannon, (half of which were mounted) sixteen small mortars, with an immense quantity of provisions and goods, to be sent to the troops gone to oppose Brig. Gen. Forbes, their western garrisons, Indians, and to support the army under the command of M. Levy, on his intended enterprise against the Mohawk river, valued by the French at 800,000 livres. We have likewise taken 9 vessels from 8 to 18 guns, which are all they have upon the lake, two of which I have brought here; one richly laden; and the rest and the provisions I have burnt and destroyed, together with the fort, artillery, stores, &c. agreeable to your excellency's instructions, should I succeed. The garrison made no scruple of saying, that their troops to the southward and western garrisons will suffer greatly, if not entirely starve, for want of the provisions and vessels we have destroyed, as they have not any left to bring them home from Niagara. The terms on which the garrison surrendered were prisoners of war, until exchanged for equal numbers and rank.

with such secrecy and dispatch, into the French country.

The success of Bradstreet at Cadaraqui, was not without its effect on the feelings and movements of the Indians, on the Ohio. In the beginning of July, brigadier general Forbes began his march from Philadelphia, for fort Du Quesne. The fort stood on the confluence of the Monongahala with the Ohio river. With incredible difficulties, through a vast tract of country, but little known, without roads, through unexplored mountains, morasses and woods, he had penetrated with the main body as far as Rays-town, at the distance of ninety miles from fort Du Quesne. He had sent on colonel Bouquet, with two thousand men, fifty miles further, to a place called Lyal Henning. Bouquet had detached major Grant, at the head of eight hundred men, to reconnoitre the fort and works at the Ohio. The enemy having intelligence of Grant's approach, sent forward a much larger body to intercept and surround him. A severe action took place, which the English supported with much courage and resolution for three hours, but at length were obliged to yield to the superior numbers of the enemy. Three hundred were killed or taken by the enemy, among whom was major Grant, the commander; he, and nineteen of his officers were carried prisoners to fort Du Quesne; the remainder of his troops fought their way back to Bouquet. Forbes was not dismayed by this mortifying check, but still advanced with much caution, and a steady perseverance. The enemy having watched his motions, and observed the circum-

spection and vigor, with which he made his advances, concluded not to abide the hazard and event of a siege; but dismantled and abandoned the fort, and retired down the Ohio, to their settlements on the Mississippi. On the twenty fourth of November they quitted the fort and the next day it was taken possession of by the British army. Having repaired the works, Forbes changed the name of the fort from Du Quesne, to that of Pittsburg, which it still bears.*

Such were the events of the campaign of 1758. The expeditions against Louisbourg, Forts Frontenac and Du Quesne, had compleatly succeeded. That against Ticonderoga had failed. The events of the campaign had been much in favor of the British interest; and the advantages that had been obtained over the French, gave flattering hopes and prospects that they might be pursued to much greater advantage, in the course of another year. General Amherst had now assumed the command, and the public expectation and feeling were ready to afford any assistance that he should ask. This general was already preparing for the next campaign. Soon after he had compleated the conquest of Cape Breton he received intelligence of the defeat of Abercrombie at Ticonderoga. Leaving a strong garrison at Louisbourg, he embarked with six regiments, and landed at Boston. About the middle of September, he began his march for Albany, to join the troops at the lake; to attempt any further enterprise, or to be in readiness for the next campaign, as the season and circumstances should permit.

* Smollet's Hist. England, Vol. 3, p. 291.

CHAPTER XIII.

WAR. *Progress and events of the war in the years* 1759 *and* 1760. *Plan of the campaign for* 1759. *Conquest of Quebec by general Wolfe. Capture of Ticonderoga and Crown Point by general Amherst. Expedition against the Indian village of St. Francois by major Rogers. Proceedings on lake Champlain. Capture of Niagara by General Johnson. Reflections on the campaign of* 1759. *Measures of Vaudreul at Montreal in* 1760. *Plan and proceedings of general Amherst. General Murray's defeat at Quebec, and arrival at Montreal. Haviland's arrival at the river St. Lawrence. Capitulation and surrender of Canada to general Amherst. Reflections on the origin of these wars. Their effects on the morals, literature, population, settlement and political state of the colonies.*

1759. FROM the advantages that had been already obtained over the French, the British ministry had been lead to expect that the compleat conquest of Canada might be effected in another campaign; if their troops were employed so as to divide the enemy's forces, and to make their impressions on different parts of the country at the same time. In pursuance of this plan the British minister, PITT, had projected three expeditions against Canada. General Wolfe, who had been so much distinguished in the siege of Louisbourg, was to proceed up the river St. Lawrence with a body of eight thousand men, as soon as the river should

be clear of ice, and lay siege to Quebec, the capital of Canada. General Amherst, who was commander in chief, was to proceed with an army of regular troops, and provincials, amounting to twelve thousand; and attempt the reduction of Ticonderoga and Crown Point, and thence proceed through lake Champlain and the river Sorel, to the assistance of Wolfe. At the same time brigadier general Prideaux with a third body, reinforced by the Indians under the influence and command of sir William Johnson, was to invest the French fort at Niagara, and endeavor to reduce that important fortress. It was concluded, that while all these forces were making their attacks in different directions, they would all serve to assist each other; and at the same time to divide the forces, and embarrass the councils of the enemy.

The plan itself was marked with the energy and boldness of the minister's genius. The navigation of the river St. Lawrence had ever been viewed as very difficult and dangerous for a fleet. The city of Quebec was strongly fortified by nature and art, formidable on account of the number and bravery of its inhabitants, and in a situation in which it could not be much injured by a fleet, or approached but by a strong army by land. The marquis de Montcalm was a general of much courage, activity, and experience; already famous for his exploits, and success against the English. This officer had taken his situation between Quebec and Montreal, with an army of ten thousand men, consisting of regular troops, and well disciplined militia, reinforced by a large number of armed

Indians. An army of reserve hovered round Montreal, the residence of M. de Vaudrieul, the commander in chief, and governor general of Canada. The fort at Niagara was well built, and fortified, and contained a garrison of six hundred men; the road to which, was long, embarrassed, and unexplored. M. de Levy was also at the head of a flying detachment, acquainted with the woods and passes, scouring the country in all directions; and augmented by new recruits, as occasions and circumstances required. And every preceding attempt had shewn the difficulty, the danger, and the ill success, of an expedition against Quebec, or Ticonderoga. Aware of these difficulties, but animated by the genius of Mr. PITT, the British colonies and troops entered with energy and zeal upon measures, that rather bore the appearance of danger and defeat, than of probability and success.

THE most difficult part of the business, and the great object to which all the other operations of the campaign were subordinate, was the conquest of Quebec. This expedition had been committed to the care of major general Wolfe; a young officer of great enterprise and resolution, and of a superior military genius. He was assisted by the brigadier generals, Monckton, Townshend, and Murray; officers of distinction, family, and much experience, though yet in early life. The squadron designed for the service was put under the command of Admirals Sanders and Holmes, who had on several occasions before signalized their courage and conduct in the service of their country. The fleet

sailed from England about the middle of February, and was in sight of Louisbourg so early as the twenty first of April; but the harbor being blocked up with ice, the fleet bore away for Halifax. As soon as the season would permit, the troops were embarked, and the fleet sailed up the river St. Lawrence, without meeting with any of those difficulties or perils, which they had been taught to expect. Towards the latter end of June, the whole army was safely landed on the isle of Orleans, a little below Quebec, without any opposition, or having met with any disaster.

From that time till the beginning of September, general Wolfe was struggling without prospect of success, against every kind of difficulty, in an enemy's country, against a city strongly fortified by nature and art, defended by an army more numerous than his own, commanded by Montcalm, whose military talents and exploits had already rendered him famous and formidable to the British colonies and generals. In addition to other difficulties he had received a severe check, and lost above five hundred of his men, in an attack which he made on the enemy at the falls of Montmorenci. A fever and a dysentary were wasting his own strength, and for a time he became unable to attend to business.

Almost despairing of success, it was the opinion of his general officers that there was no prospect of succeeding, unless they could carry the troops above the town, effect a landing on the north shore, and bring the enemy, if possible, to a general engagement. Wolfe adopted

the opinion as a matter of extremity and necessity, and began the measures that were necessary to carry it into execution. After a series of the most uncommon difficulties, and judicious manœuvres, by the most dexterous address, and well concerted movements, he succeeded in effecting a landing near Sillary on the twelfth of September, an hour after midnight. Wolfe himself was with the first party that landed; and in an instant all was activity, enterprise, and expedition. The troops that were first landed, climbed up the bank and precipice, by the bushes and boughs of trees, with the most animated agility and resolution; they dispersed a captain's guard who were placed there to defend the narrow path of ascent, and gained the summit without any further molestation from the enemy. Wolfe climbed up among the rest; and as soon as he had ascended the banks, drew up his troops in order as fast as they arrived.

Montcalm was no sooner informed that the British troops had gained the heights of Abraham, which in a manner commanded the town in its weakest part, than he resolved to hazard a battle, and having collected his whole force from the side of Beauport, began his march without delay. Both armies were soon drawn up in order of battle, with their respective generals at their head. Wolfe had placed himself on the right of the English; Montcalm was on the left of the French army: Thus the two generals, rivals worthy of each other, met at the head of their respective armies, where the conflict was the most severe. About nine o'clock the French army advanced to the charge in

good order, and with vivacity ; but with an irregular and not well directed fire. The British reserved their fire, till the enemy had approached within forty yards of their line ; then they poured in a terrible discharge, and kept up their fire with great deliberation and spirit. The contest for a few moments was dreadful ; both generals were determined to conquer or die ; and their armies knew that on the event of an hour, the fate of Quebec depended. The French were unable to stand the impetuosity and fire of the British but for a short time ; and the battle soon terminated in the entire defeat and dispersion of the French army. Wolfe* and Montcalm* both fell at the head of their troops, and the British were left compleatly masters of the field, under brigadier general Townshend. Five hundred of the enemy were slain on the field of battle, and about one thousand were made prisoners ; of the British, fifty men were killed, including nine officers, and as many as five hundred were wounded. Dispirited by the event, and disheartened by the loss of their able and favorite general Montcalm, the French were in great consternation ; and on September the eighteenth, De Ramsay, the officer on whom the command had devolved, signed articles of capitulation, and surrendered the troops and the city to admiral Sanders and general Townshend. Thus was effected the conquest of the city of Quebec. For seventy years the English had been attempting to reduce this place. The force that was sent against it in the year 1711, was

* Appendix, No. VIII.
† Appendix, No. IX.

fully equal to that which was now before it. The force that Wolfe commanded did not appear adequate to its reduction, and it was defended by the greatest general the French had ever employed in Canada. The genius of Wolfe succeeded in defeating their general, and subduing their capital.

While these scenes were taking place at Quebec, general Amherst had no information of the proceedings in that quarter, but was busily employed in pushing forward the expedition on lake Champlain. So many difficulties occurred to retard the operations of his army in that unsettled part of the country, that the summer was already far advanced, before he could pass lake George with his troops and artillery. Aware of the danger of surprise, and not unmindful of the disaster that the British troops had sustained the year before, this able and judicious officer proceeded with the greatest circumspection; leaving nothing to chance, but making provision for every difficulty, or opposition, that could be foreseen. At length, in the latter end of July, he arrived in the vicinity of Ticonderoga, with his army of regulars and provincials, in excellent order, and amply supplied with artillery, military stores, and provisions. The enemy had watched all his motions, and been very attentive to find an opportunity to gain some advantage; but they had not ventured to make any opposition to his troops, either when passing the lake, or effecting their landing. Having passed the lake and landed his stores, Amherst immediately began to make preparation to reduce the fortress by a regular siege. At first

the enemy appeared to be resolute to hold their works, and to make a regular defence. They soon found that they had an able officer to oppose; that Amherst was cautious, resolute, well prepared for undertaking the siege, and not disposed to subject any thing to unnecessary risk or hazard. Despairing of success by any surprise, or extraordinary exertions, and having orders to retreat from place to place towards the centre of operations at Quebec, rather than to run the risk of diminishing the French force by surrendering prisoners of war, they set about dismantling the fortifications; and having done some small injuries to the works, they abandoned them on the night of the twenty seventh of July, and repaired to Crown Point; leaving their heavy artillery, several sunken boats, and the works but little damaged though on fire. The same day, Amherst took possession, and encamped within the French lines. This important acquisition was effected without much opposition or bloodshed: It was however marked with the loss of colonel Roger Townshend, a very accomplished young officer, who was killed by a cannon ball as he was reconnoitering the fort. This young nobleman much resembled the gallant lord Howe, in the circumstances of birth, age, character, and useful qualifications. He fell near the same spot, where that young hero was slain the year before.

Having succeeded in his attempts against Ticonderoga, Amherst began to repair and enlarge the fortifications; and to prepare his batteaux and other vessels for an expedition against Crown Point. Scouting and ranging

parties were constantly employed, hovering in the neighborhood of that place, and watching all the measures and motions of the enemy. One of these parties returned to the English camp on August the first, and brought intelligence that the French had also abandoned Crown Point, and were gone down the lake, without destroying the works. Amherst detached a body of rangers to take possession of the place; and on the fourth of August embarked with his army, landed the same day, and placed his troops within the enemy's works. Thus was effected the reduction of Ticonderoga and Crown Point. From the time of their first erection they had given security to the inroads of the enemy, afforded an asylum to the scalping parties that had infested the frontiers of the whole country, and cost the British colonies immense sums of money and many thousands of her citizens. They now fell by the attack that Wolfe was making upon Quebec, and by the caution and resolution that Amherst displayed in the approach and manœuvres of his army. No sooner was their conquest compleated than Amherst superintended the works, strengthened and enlarged the old ones, and began a new fort; meaning to make effectual provision that the enemy should never again obtain possession of a post, which had been so dangerous and distressing to the British provinces.

The French troops, after the evacuation of Crown Point, retired to the Isle Aux Noix. This island is at the north end of lake Champlain, about five leagues to the south of St.

Johns ; and being situated in the midst of the stream, effectually commands the passage into Canada, in that quarter. At this place, M. de Burlemagne had collected a force consisting of three battalions, and five piquets of regular troops and a body of Canadians and marines, amounting in the whole to three thousand and five hundred men ; provided with a numerous artillery, and every requisite for defence. The lake was defended by four large vessels, mounted with cannon, and manned with piquets from different regiments ; under the command of M. le Brass, a captain in the French navy, assisted by M. de Rigel, and other sea officers. With this force, M. de Burlemagne encamped and fortified at the Isle Aux Noix ; meaning to make a stand against the British forces. And Amherst could not proceed down the lake till he had constructed a naval force superior to that of the French.*

In the mean time it was thought best to make the enemy feel the force and resentment of the English colonies. The Indians had not as yet discontinued their attempts to disturb and distress the frontiers. Among these tribes none had been more bloody and cruel than that of St. Francois. Their village was situated on the south side of the river St. Lawrence, not far from Trois Rivieres. So early as the year 1703, the governor of Canada had drawn off a large number of Indians from Penobscot, Norrigewock, Saco, Pigwacket, and other parts of the eastern country and settled them at Becancour and St. Francois. By uniting them with the In-

* Smollet's Hist. England, Vol. 3, p. 470.

dians of Canada, he meant to procure a force sufficient to protect their own frontiers; and to have always in reserve, a body of savages well acquainted with the English frontiers, and the most favourable times and places of carrying desolation among them.* The event justified his expectations. From none of the Indian tribes had the provinces of New-Hampshire and Massachusetts suffered so much, as from the savages of this village and tribe. They made their incursions through the river St. Francois to lake Memphremagog, and from thence down Connecticut river to the English settlements; and had been much distinguished by the slaughter and destruction they had spread among the advanced settlements, by the number of their scalps and captives, and by the enormity of their cruelty and barbarity.

Major Rogers was appointed by general Amherst, to manage an excursion against this barbarous tribe and to carry the horrors of war into the midst of Canada. Rogers was from the province of New-Hampshire. He commanded a company so early as the year 1755; and had become so famous for the number, boldness and success of his enterprises, that lord Loudon had set him at the head of the ranging companies, put him upon the British establishment and pay, till he rose to the rank of a major. Amherst esteemed him a proper person to retaliate on an Indian village, some of the measures they had so often acted, against the advanced English forts and settlements. The orders which he

* Hutchinson's Hist. Massachusetts, Vol. 2, p. 131.

gave to Rogers, were expressive of the character and views of the English general; and of the sentiments and feelings of the English colonies, with respect to the Indian cruelties.*

In conformity to his orders, Rogers set out with two hundred men in batteaux, and proceeded down Lake Champlain. On the fifth day after they left Crown Point, they met with a misfortune which diminished their numbers. Being encamped on the eastern shore of the lake, a keg of gun powder accidentally took fire, which in its explosion wounded a captain of the royal regiment, and several of the men. These were sent back to Crown Point, with some of the party to conduct them; by this event the party was reduced to one hundred and forty two men, officers included. With this reduced party, the major proceeded on the expedition, and in seven days landed at Missiscoe bay. Here he concealed his boats among the bushes that hung over one of the streams, and left in them provisions sufficient to carry them back to Crown

* "Orders from Sir Jeffrey Amherst to major Rogers.

"You are this night to set out with the detachment as ordered yesterday, 'viz. of two hundred men) and proceed to Missiscoe Bay, from 'whence you will march and attack the enemy's settlements on the south 'side of the river St. Lawrence, in such a manner as you shall judge 'most effectual to disgrace the enemy, and for the success and honor of 'his Majesty's arms.

"Remember the barbarities that have been committed by the enemy's 'Indian scoundrels, on every occasion where they have had an opportunity 'of showing their infamous cruelties on the King's subjects; which they 'have done without mercy; take your revenge; but do not forget that 'though these villains have dastardly and promiscuously murdered the 'women and children of all orders, it is my orders that no women or children be killed or hurt.

"When you have executed your intended service, you will return with 'your detachment to camp, or to join me wherever the army may be.

'Yours, &c.

'JEFFREY AMHERST.

'Camp at Crown-Point, September 13, 1759."

Simes' Military Dictionary—Art. Treserevere.

Point. Two of his rangers were appointed to watch the boats, and to keep themselves concealed till the party should return; or if the enemy should discover the boats, to pursue the track of the party with the greatest speed, and give intelligence to the commander. The second evening after Rogers left the bay, the two trusty rangers overtook the party, and informed Rogers that four hundred French and Indians had discovered the boats and sent them away with fifty men; and that the remainder were in pursuit of the English party. Rogers kept the intelligence to himself; and ordered a lieutenant, with eight men and these two rangers to proceed to Crown Point; inform the general of what had taken place, and request him to send provisions to Coos (now Newbury) on Connecticut river, by which he meant to return.

Nothing now remained for Rogers but to give up the expedition, or to outmarch his pursuers. He determined on the latter, and pushed forward for St. Francois, with all the expedition that was possible. On the fourth of October, at eight o'clock in the evening, he came within sight of the town. Ordering his men to halt and refresh themselves, he dressed himself in the Indian garb, and took with him two Indians who understood the language of the St. Francois tribe, and went to reconnoitre the town. He found the Indians engaged in a grand dance, and without any apprehension of danger. At two o'clock in the morning, he returned to his detachment, and marched them to the distance of about five hundred yards from the town. About four o'clock the Indians broke up their

dance and retired to rest. Rogers waited till they were asleep, and at break of day, he posted his men in the most favorable situation and made a general assault.* Compleatly surprized, the Indians were soon subdued. Some were killed in their houses, and of those who attempted to fly, many were shot, or knocked on the head by those who were placed at the avenues. The Indian method of slaughter and destruction was put in practice on this occasion; and wherever the Indians were found, their men, women and children, were slain without distinction and without mercy. The ferocity of the proceedings were already extremely violent, but the prospects which appeared at the rising of the sun, could not but add new force and irritation to the feelings and passions of the assailants. As the light appeared, the scalps of several hundred of their countrymen were seen, suspended on poles, and waving in the air. These trophies of savage cruelty and success could not fail to irritate to the highest degree, the passions of the provincial soldiers; they meant to avenge the blood of their friends and relations, and they spared no pains to make an end of the village, and of all that they could find of its inhabitants. The village contained three hundred of the enemy; two hundred were killed on the spot, and twenty taken prisoners.

The town appeared to have been in a very flourishing state. The houses were well furnished, and the church was handsomely adorned with plate; the whole village had been enriched

* Stiles' Dictionary, Ibid.

by the scalps, and plunder, taken from the English. Two hundred guineas were found in money, and a silver image weighing ten pounds; besides a large quantity of wampum, cloathing, and some provisions.* Collecting the provisions, and such articles as they could easily transport, they set fire to the town, and reduced it to ashes. At seven o'clock in the morning the affair was compleatly over; Rogers then assembled his men, found that one was killed, and six slightly wounded. Having refreshed his men for one hour, the major made no further delay; but set out on his return, with the addition of five English captives whom he had retaken; leaving the inhabitants slain, and the village reduced to ashes.†

To avoid his pursuers, Rogers now took a different route, and marched up St. Francois river; meaning to have his men collect, and rendezvous at Coos, on Connecticut river. On their march they were harrassed by some of the enemy, and several times attacked in the rear. In these rencounters they lost seven of their men, till Rogers, favored by the dusk of the evening formed an ambuscade upon his own track, and fell upon the enemy where they least expected it; by this stroke, he put an end to any further annoyance from the enemy. For about ten days the detachment kept together, till they had passed the eastern side of lake Memphremagog. It was then thought best to scatter into smaller parties, and make the best of their way to some of the English settlements.

* Belknap's Hist. New Hampshire, Vol. 2, p. 304.
† Sines. ibid.

Their sufferings now began to be severe, not only from the excessive fatigues they had undergone, but from hunger. Their provisions were expended, and they were yet at a distance from any place of relief. Some were lost in the woods, and others perished at Coos, being unable to hold out any further.* But Rogers, with the most of his men, persevered amidst all their sufferings, till they arrived at Number Four, now Charlestown. This enterprise proved extremely dangerous and fatiguing to the men, who had been engaged in it; but it made a deep impression on the enemy. It carried alarm and consternation into the heart of Canada, and convinced the Indians that the retaliation of vengeance was now come upon them.

While Rogers was thus employed in humbling the Indians on the river St. Lawrence, general Amherst was preparing to carry his army against the forts and settlements in Canada. The naval force of the enemy, as yet gave them the command of the lake; the first business of the English general was, to obtain a superiority there. Captain Loring had for some time been employed to superintend the building of vessels at Ticonderoga. Having obtained information of the situation and force of the enemy at the Isle Aux Noix, Amherst directed Loring to build, with the greatest expedition, a sloop of sixteen guns, and a radien, eighty four feet in length, capable of carrying six large cannon. By the eleventh day of October, these, together with a brigantine were finished, victualled and manned;

* Belknap. ibid.

and the general embarked with the whole body of his army in batteaux, to engage the enemy. The next day the weather became tempestuous, and they were obliged to come to anchor in a bay on the western side of the lake, and the men were landed for refreshment. In the mean time, Loring, with his small squadron, sailed down the lake, and discovered the French force: He gave chace to a French schooner, and drove three of their vessels into a bay, where two of them were sunk, and the other was run aground by their crew, who escaped into the woods. One however was repaired, and brought away by Loring, who had so far succeeded as to leave but one schooner remaining to the French.

General Amherst, after having been wind bound for several days, reembarked his troops, and proceeded down the lake. The storm which had abated, began again with increased violence, and the batteaux were in danger of being swallowed up by the waves. Finding the season for action was elapsed, and the winter setting in with severity, the general judged it impracticable to undertake a new expedition without endangering his army, or running too great a risk of not effecting his object. Returning to the bay in which his troops had been sheltered during the storm, he landed them again, and began his march to Crown Point, where he arrived on the twenty first of October.

Having succeeded in gaining possession of two of the French forts, and securing the command of the lake, Amherst's attention was now employed in erecting a new fortress at Crown Point, and three new outworks for its more ef-

fectual defence; in compleating the roads which had been opened during the summer; and planning another from Ticonderoga to Number Four or Charlestown on Connecticut river; his object was, effectually to secure the advantages which he had already obtained; and to put his troops in a situation, favorable to the compleat success of another campaign.*

The expedition to Niagara, had been put under the command of general Prideaux. This officer, with the troops assigned for the expedition, reinforced by the Indian auxiliaries under Sir William Johnson, advanced to Niagara without being molested by the enemy; and invested the fort, about the middle of July. The approaches were carried on with much vigor till the twentieth of that month, when Prideaux, visiting the trenches, was unfortunately killed by the bursting of a cohorn. The command of the army devolving on Sir William Johnson, he pursued the same vigorous measures, and erected his third battery within one hundred yards of the flag. While the English were thus pushing the siege with the greatest vigor, the enemy were making preparations to relieve the place; and had assembled a body of troops from Venangs, Detroit, Presque-Isle, & other settlements in that quarter, amounting to twelve hundred men. These, with a body of Indians under the command of M. d'Anbry, were marching to reinforce the garrison at Niagara. Johnson was informed by his Indians that this body was on their march, and he instantly resolved to

* Smollet's Hist. England, Vol. 3, p. 471.

intercept them. In the evening of July the twenty third, he ordered the light infantry and piquets to take post on the left, on the road leading from the falls of Niagara to the fort. In the morning, these troops were reinforced with the grenadiers, and by a part of the forty sixth regiment, commanded by lieutenant colonel Massey ; the forty fourth regiment, under lieutenant colonel Farguhar, was posted at the tail of the works, to support the guard of the trenches ; and the Indians were ordered and encouraged to be ready for the contest.

THUS prepared, the English were ready for the battle, and about eight o'clock in the morning the enemy appeared. The Indians in the English army, advanced to speak to their brethren who were with the French ; but the conference was declined by the enemy. In a few minutes the horrible yell, called the War-whoop, became the signal for slaughter ; and the action was begun with great impetuosity by the enemy. But neither the Indian shrieks, nor the French vivacity could avail ; their troops met with a hot reception in the front, and Sir William's Indians fell furiously on their flanks. The shock was too violent to be sustained, and in little more than half an hour their whole army was routed. Great numbers were slain, their general and all his officers were taken prisoners, and the pursuit was continued for five miles, through the woods with great slaughter.

THE battle was fought in the sight of the French garrison at Niagara, but the garrison was not aware how great a loss the French army had sustained. As soon as the defeat of the

French was compleated, general Johnson sent major Harvey with a flag to the commanding officer in the fort, with a list of the prisoners, requiring him to surrender while he had it yet in his power to restrain the Indians, and before any more blood should be shed. The commanding officer wished to be certain of the event of the battle, and was permitted to send an officer to visit the prisoners. Upon his return, the commander agreed to surrender, articles of capitulation were proposed, and in a few hours the treaty was ratified and signed; the whole was compleated about ten o'clock in the evening of the same day, on which the battle had been fought. The garrison, consisting of six hundred and seven men, were to be prisoners of war, and protected against insult and pillage from the Indians; the women, at their own request, were to be conducted to Montreal; the sick and wounded were to be treated with humanity, and sent to their respective corps as soon as they were recovered.*

This was the second victory that Sir William Johnson had obtained in the course of this war. In both he had entirely defeated the enemy, and taken their commanders prisoners. He himself had not the advantages of a regular military education. In his battles, and in what was more difficult, in the art of governing and managing the Indians, he was most of all indebted to superior natural sagacity and courage. In this expedition against Niagara, he had brought forward eleven hundred Indians of the six na-

* Smollet's Hist. England, Vol. 3, p. 478.

tions ; in the battle he had animated their natural fierceness and impetuosity ; after the surrender, he cooled and restrained them within the bounds of order and moderation ; in both cases, he knew how to manage the savage temper, and to make it subservient to his own views and purposes. Like other professional men, the British generals did not intend to believe that any thing effectual could be done in their profession, without a regular course of education, discipline, and experience. When Amherst received intelligence of the death of general Prideaux, he appointed brigadier general Gage to the command, and sent him on from Crown Point to Niagara. Happily for the colonies, Gage did not arrive, till the superior genius and sagacity of Johnson had reduced the fort, and compleated the business of the expedition.

In reviewing the operations of this campaign, it will naturally occur to our minds that the British minister had discovered sound policy, and an excellent judgment, in selecting the genius and characters of the several commanders, for the nature of the service which they had to perform. A general less courageous, active, enterprising, and animating, than Wolfe, would not have persevered amidst all the difficulties which attended his situation ; nor would have thought of subduing Quebec, when defended by a superior force, under such a commander as Montcalm ; nor would have dared to put the event on the risk of a single battle. Wolfe well knew what his troops could perform, and the event turned out in conformity to his expectations and wishes. Johnson foresaw how the

French and Indians would make their attack, and what would be the consequence of their hurry and precipitation; and the spirit he discovered in the execution, was equal to the wisdom and precaution of his arrangements. Cool, resolute, and cautious, Amherst left the enemy nothing to expect from surprise, or from what they called *a coup du main;* but at the same time, he made the Indians feel the horror and vengeance of their favorite system, a war of extermination. When the French officers found that nothing but superior skill or force would be able to withstand him, they prudently declined the combat; and to avoid being made prisoners of war, resigned to him their forts, and the command of lake Champlain.

1760. The operations of the last campaign had been so extensive and successful, that no object now remained in the northern colonies, but to compleat the conquest of Canada, by the reduction of Montreal. In respect to its numbers, situation and importance, this was the second place in Canada. It was built on an island in the river St. Lawrence, at nearly an equal distance from Quebec, and the lake Ontario; and was the staple of the Indian trade and residence of the governor general of the colony. There M. de Vaudrieul had fixed his head quarters, and proposed to make his last stand against the efforts of the British generals. He levied all the forces that could be raised, collected magazines, erected new fortifications, and availed himself of all the arts and measures that could be adopted by an able and experienced soldier and statesman. His hopes, however,

could not be derived from the situation or strength of the city, but upon the natural strength of the country; the woods, mountains, waters, defiles and morasses, that the British generals must have to pass, before they could bring their armies around the city. These, he hoped, might retard the progress of the English armies, or protract the war till a general peace should be made, or some favorable event enable the French to afford relief to the colony. That nothing might be wanted to animate and allure the inhabitants to make a general and desparate struggle to save the country, he addressed a circular letter to all the officers of the militia, in this style:

Montreal, June 8, 1760.

"SIR,

'THE chevalier de Levy is just returned 'to this town; he has repeated to me the strong 'testimony which he had before given me, of 'the good will, the zeal, and ardour of your 'company of militia.

'I expected no less from the fidelity of the 'brave Canadians, and from their attachment 'to their native country.

'HIS majesty, who is by this time, probab-'ly informed of your brilliant victory, will be 'no less pleased with this, than affected with 'the distresses of the colony; so that suppo-'sing that peace has not been concluded, on 'the receipt of this news, the king of England 'cannot possibly avoid subscribing such terms 'as our monarch shall have imposed upon him.

'YOU are not uninformed of the great ad-'vantages which he gained in Europe during

'the last campaign over the English and Prus-
'sians.

'THE prisoners which are bringing in every
'moment, all agree in confirming them.

'THE truth is, his majesty is in person in
'Holland with an army of 200,000 men, the
'prince of Conti in Germany with 100,000, and
'the princes of Deux-Ponts, and Soubise,
'command the army of the empire of 200,000;
'and lastly, the empress of Russia, and the
'queen of Hungary, have joined their whole
'force, and were taking measures for the con-
'quest of the remainder of his Prussian majes-
'ty's dominions.

'BESIDES this, the last accounts assure us,
'that the garrisons of forts Frederic, Niagara,
'and Chonagan, have suffered greatly by a sick-
'ness, which is not yet stopped, and that the
'regular troops in New England are reduced
'to nothing.

'GENERAL MURRAY, therefore, has disper-
'sed manifestoes to no purpose, to magnify his
'own nation, to pacify the Canadians, to engage
'them to lay down their arms, to discredit our
'bills of exchange, and our currency, at the
'same time that the English traders are eager
'to procure them, because they have been re-
'gularly paid.

'YOU see, sir, that the colony is drawing to
'the end of its hardships and distresses, and that
'it is upon the point of seeing plenty succeed
'to scarcity.

'IF the English make any attempt, it can
'have no other object than the ambition of their
'generals; we are thoroughly prepared to re-

'pulse them with spirit; we have a train of 'artillery, besides that which we took from the 'enemy; a still greater proportion of powder, 'ball, and ammunition, for the operations which 'I have projected; we have also provisions 'enough, by means of the resources which we 'shall find in the good will of the Canadians, 'who have the greatest interest in the preserva-'tion of their religion and liberty. The king's 'troops will even live, if necessary, upon roots, 'when they cannot do better, and will not fail 'to join their endeavors to those of the brave 'Canadians.

'My intention then is, that you and all your 'militia, should hold yourselves ready to march 'with arms, baggage and eight days provisions 'to our frontiers, when the case shall require it.

'I believe I may venture to assure you, that 'these will be the last dispositions which I shall 'have occasion to make for the defence of this 'colony; being firmly convinced, that, some 'time in August, at least, we shall have peace, 'provisions, and, in general, whatever we want. 'I am, &c.

'P. S. You will assemble the militia of your 'company, and read this letter to them. You 'will carefully inspect their arms. If any of 'them are out of order you will give them a 'note, and the king's gun smith's will repair 'them immediately."*

While the marquis de Vaudrieul was thus struggling between despair, hope, and endeavor, general Amherst was concerting and execut-

* Smollet's Hist. England, Vol. 3, p. 41.

ing measures, to bring all the British armies in America, to act in concert against Montreal. He had sent instructions to general Murray, at Quebec, directing him as soon as the season would permit, to advance up the river St. Lawrence by water, towards Montreal, with all the troops that could be spared from the garrison of Quebec. He appointed colonel Haviland to command a body of troops, which were to proceed from Crown Point, through lake Champlain, to take possession of the Isle Aux Noix; and from thence they were to advance by the shortest practicable route, to the banks of the river St. Lawrence. For himself he proposed to go with the main body of his army by the way of the Mohawk, and Onondago rivers, to lake Ontario; to embark his troops at Oswego, sail over the lake, and down the river St. Lawrence, to the island of Montreal. By this plan he proposed to bring all his troops against that place, and to inclose and surround the enemy on that island.

The plan of military operations being settled, the commanders, as early as the season would allow, set themselves to carry into execution the part that was assigned to them. General Amherst had procured two armed schooners to cruise on lake Ontario, under the command of captain Loring; and a great number of batteaux, and other small vessels were provided for the transportation of the troops, artillery, ammunition, provisions, and baggage. Several regiments were ordered to proceed from Albany to Oswego; and the general himself marched from Schenectady, with the rest of his troops in

the latter end of June, and arrived at Oswego on the ninth of July.

The army being assembled, amounted to about ten thousand men; and they were joined by a considerable body of Indians under the direction of Sir William Johnson. Colonel Haldimand, with the light Infantry, the Grenadiers, and one battalion of Highlanders, was detached to take post at the eastern part of the lake, and assist the armed vessels in finding a passage to la Galette. On the tenth of August the whole army embarked on board the batteaux and whale boats, and proceeded along the lake towards the origin of the river St. Lawrence. Understanding there was nothing to fear from the enemy's vessels, the general resolved to proceed down the river to Swegathcie, and attack the French fort at Isle Royale; a post which in a great measure commanded the passage by water, either from or to lake Ontario. On the seventeenth, the row gallies fell in with the French sloops commanded by M. de la Broquerie; which were forced to surrender, after a warm contest. Amherst now prepared to invest the fortress at Isle Royale. Batteries were raised on the adjacent islands, and the fort was cannonaded also by the armed sloops; in one of those islands, some scalps were found which the inhabitants had taken from some of the Mohawks, whom they had slain: The Indians were so inflamed at the sight, that they burned their chapel, and all their houses.

Preparations being made for a general assault, the commander, M. Pouchant found it most prudent to beat a parley, and surrender on

capitulation. With the capture of this fort the opposition of the enemy ceased, but the navigation became extremely difficult and dangerous. The river abounded with a great number of rapids and falls, which could not be avoided. Great care was taken to guard against the dangers of the passage; but notwithstanding all the vigilance and exertions of the officers and men, the army suffered much in this part of their voyage. Forty six batteaux, seventeen whaleboats, one row-galley, some of their artillery, ammunition, and stores, with above eighty men were lost on the passage. This dangerous service being effected, the army met with no further difficulty, but landed on the island of Montreal, September the sixth, without any opposition from the enemy, except some random shots from some of the flying parties, who instantly disappeared.

While general Amherst had been thus engaged in preparing for the expedition, and coming down from lake Ontario, general Murray had not been less active at Quebec, and on the river St. Lawrence. During the winter he neglected no measure that could be taken to preserve Quebec and to subdue the adjacent parts of the country, and many of the inhabitants actually took the oath of allegiance to the king of Great Britain. The garrison however within the walls of Quebec suffered much from the extreme cold of the winter, the want of fresh provisions, and the scurvy; before the end of April, one thousand of the soldiers were dead, and double that number were unfit for service. The chevalier de Levy, on whom the command

of the French troops had devolved by the death of Montcalm, was encouraged to hope from the state of the British garrison that Quebec might be reduced by siege before a British fleet could arrive with succours in the spring. For this purpose he collected all the regular troops, Canadians and Indians that he could assemble; and formed an army of more than twelve thousand men. With this force he advanced to lay siege to Quebec in the latter end of April. Murray confiding in the bravery & discipline of his troops, meant to confound & disperse them by the boldness & vigor of his measures. On the twenty eighth of April, at half an hour after six in the morning, he threw open the gates of Quebec, and marched out with his little army of three thousand men to give battle to the enemy. A severe conflict took place, and an obstinate battle was kept up for an hour and three quarters. At length the British were overpowered by numbers, and obliged to quit the field with the loss of a thousand men killed or wounded. The French lost a much greater number, but remained masters of the field of battle.

Murray retreated with his troops within the walls of Quebec; and neither dismayed by the loss of the battle, or discouraged with the weakness of his own situation, made a vigorous defence and determined at every risk and hazard to hold out till succours should arrive. The enemy did not omit to avail themselves of the advantage of the battle, and the same evening opened their trenches against the place. For several days they cannonaded the city with great

vivacity, but their artillery was not equal to that of the garrison. On the ninth of May a British ship, commanded by captain Deane entered the harbour of Quebec, and announced the joyful news that a British squadron was in the river. On the fifteenth of May, commodore Swanton arrived, and in the evening anchored above point Levy. Early the next morning two of his vessels slipped their cables to attack the fleet which the French had collected. They were no sooner in motion than the French ships fled in the utmost disorder. One of their frigates was driven on the rocks, another ran on shore and was burned, and all their other vessels were taken or destroyed. So confounded and dispirited were the enemy by this disaster, and the dread of an approaching fleet, that in the following night they raised the siege of Quebec, and retreated with great precipitation, leaving their provisions, implements, and artillery. The next morning, Murray marched out, but found the enemy had fled; and nothing left for him but to take possession of their tents, stores, magazines of provision, ammunition, and artillery.

The affairs of Quebec being settled, and a proper garrison assigned for its protection, Murray prepared to advance up the river to Montreal. The troops were embarked at Quebec, on board a great number of small vessels; captain Deane in the Diana, undertook the command and the hazard of conducting them up the river. This officer with uncommon abilities and attention surmounted all the difficulties and hardships of an unknown, perplexed, and dangerous navigation; and such was his atten-

tion and vigilance that not a vessel was lost in conducting a numerous fleet, one hundred and eighty miles through an enemy's country, and against a rapid stream, where no English vessel had ever been before. General Murray while advancing up the river, every where published manifestoes, inviting the Canadians to submission, and promising them protection under the British government. These proclamations had great effect. Almost all the parishes on the south shore, as far as the river Sorel, made their submissions, and took the oath of neutrality; one village opposed him with arms, and that by way of example and terror he set on fire. On the north shore, lord Rollo disarmed the inhabitants as far as Trois Rivieres, and took possession of that village without opposition. M. de Levy was all the time watching the motions of general Murray, and waiting for an opportunity to attack him with success; but the time for such enterprises was past, the people were every where submitting to the British general, and were not disposed to venture on hostilities. Thus fortunate and successful in every part of the business, Murray arrived safe with the troops under his command, and landed on the east part of the island of Montreal, the day after Amherst had landed on the west.

The army that was to proceed to Montreal by the way of lake Champlain, was put under the command of colonel Haviland. To facilitate the operations of the war, Amherst had directed that a road should be opened from Number Four on Connecticut river, across the Green Mountains to Crown Point. This service was

performed by a New Hampshire regiment, under the command of colonel Goffe. They began their road at Wentworth's ferry, two miles above the fort at Charlestown ; cut down the trees and made bridges, till their road extended twenty six miles. At that place, they found a path, in which they proceeded to Otter Creek ; from whence they found a good road which lead to Crown Point. In this work they made such dispatch, as to join the army at that place on July the thirty first, and brought with them a drove of cattle for the supply of the army.* On August the twelfth, Haviland embarked his troops in batteaux and whaleboats, and sailed down lake Champlain. He met with no opposition from the enemy till he arrived at the Isle Aux Noix. This place had been strongly fortified, and made some appearance of opposition ; some skirmishes took place, and a few were slain on both sides ; but the enemy were too weak and too much dispirited to make a formidable opposition. The post was soon deserted, and the forts at St. John's and Chambly became an easy conquest. Meeting with no further opposition, the troops passed on ; and the day after Murray had effected his landing, Haviland appeared with his army on the south side of the river St. Lawrence, directly opposite to Montreal. These events and circumstances appeared highly favorable and unexpected. The three armies pursuing different routes, and unacquainted with each other's progress, passed through a long and dangerous tract in the enemy's country, and arrived at the capital within two days of each other.

* Belknap's Hist. New Hampshire, Vol. 2, p. 305.

Nothing now remained for M. de Vaudrieul, but to make the best terms he could for the colony. General Amherst, on the day in which he arrived, formed his army in a plain before Montreal, where his troops lay all night upon their arms; and was proceeding to bring on his artillery, and lay siege to the city. On the morning of the seventh, he received a flag and letter from Vaudrieul, who sent two officers demanding a capitulation. Amherst stated the terms which he would grant, and which he signified that he should not alter. Some letters passed upon the subject, but Vaudrieul could do no otherwise than to submit to the terms dictated by the British general. They were however favorable to the French colony. The troops surrendered prisoners, and were not to serve against the English or their allies during the war. The whole country of Canada was to be surrendered to the king of Great Britain; and the inhabitants were to be protected in their estates and religion.

Thus was compleated the conquest of Canada, September the eighth, 1760, in the sixth year of the war, and after the most severe struggles. During the contest, six battles had been fought, the fortune of which was equally divided. The first of these was at the meadows, near fort Du Quesne, in which Braddock was slain, and the French successful. The next was at lake George, where Dieskau was defeated and captured, and Johnson gained the victory. The third was at Ticonderoga, in which Abercrombie was defeated, and Montcalm gained the advantage. In the fourth, at Niagara, the

French were subdued, and Johnson gained a compleat victory and conquest. In the fifth, at Quebec, Wolfe and Montcalm the greatest generals that had appeared in America, both fell ; but victory and conquest were on the side of the British. The sixth was at Sillery, Murray was defeated, and M. de Levy gained the battle. The British nation and colonies for more than seventy years, had been aiming to accomplish the business, but without success. A large country was now added to the British dominions, and an end put to the depredations and ravages of the Indian tribes. The grand contest for which the war was begun, appeared to be decided ; and the future prospects of the colonies bore the aspect of tranquility, prosperity, rapid increase, and improvement. All these hopes and prospects seemed to be confirmed and compleated by the treaty of peace signed at Paris, February the tenth, 1763. By this treaty, the king of France ceded and granted to the British king in full right, the whole country of Canada, with all its dependencies, in the most ample manner and form. All that the British colonies could wish respecting Canada, was now obtained ; and the time was come, in which it might reasonably be expected, that all their future exertions would be employed for the improvement and prosperity of their country.

IN reviewing this system of colonial war, not only its military operations, but its origin, moral and political tendency and effect, are also worthy our attention and remark.

THE ORIGIN of these wars will easily be found in the different interests, feelings, and passions of men. The Europeans who made the first settlements in America, were from different parts of the European continent; from Spain, Portugal, England, France, Holland and Sweden. They brought with them the opinions, customs and habits, of the governments and churches to which they had been accustomed, and were more or less influenced by particular moral considerations, and local circumstances. These were greatly different; but in one view and design, they were all agreed. They all meant to obtain possession of the different parts of the American continent, to which they removed; and to make a firm and permanent settlement on the lands, of which they took possession. The Indians, unacquainted with the European character, and too ignorant and credulous to suspect unfriendly or mischievous designs in their new visitors, every where received them with the tokens of unfeigned hospitality and joy; and viewed them as a race of beings, far superior to themselves. The Europeans availed themselves of their superior knowledge in all the arts, commerce and business of life; and of the native simplicity and ignorance of the original inhabitants. By a careful attention to the Indian temper, character, and state, they engaged their confidence, procured their friendship, and obtained their consent to settle on

their lands. It was not till after a period of years had taken place, that the natives discerned the policy, and became jealous of the increasing power and numbers of the European settlers. With this jealousy the savage temper became sullen, gloomy, suspicious and resentful. Controversies took place, mutual provocations, complaints and injuries succeeded; and the Europeans were every year advancing, and forming new settlements in the Indian country. Disputes about property and encroachment ensued; and these had the same effect in the colonies that they have in every other part of the globe, they gradually but unavoidably resolved themselves into an appeal to force; and when once hostilities and slaughter began, war would assume all the barbarity and cruelty that was inseparable from the Indian passions, customs and habits. The result was every where the same; sooner or later war broke out between the Indians and the Europeans who were settling and taking possession of their country.

In addition to the wars that arose from this cause, there was another equally certain and unavoidable, the seat of which lay in Europe. The different interests, the mutual hatred, the perpetual pride and ambition of the European monarchs, kept their kingdoms in constant contention and war; and these wars, by the decrees of their sovereigns, always followed their subjects into the new world, and became one of their heaviest calamities and curses. Whenever the kings of England or France supposed it would be for their interest to involve their kingdoms in blood and slaughter, their colonies in

every part of the world were required to join in the folly and madness of their sovereigns ; and to plunge themselves into all the calamities and miseries of their bloody contests. In both these causes there were perpetual sources of war in the colonies ; and there was no rational ground to expect that they could be avoided, while the colonies were extending their settlements into the Indian country ; or while they remained connected with the European sovereigns or powers.

Among the dangerous consequences of these wars, the MORAL EFFECT was greatly unfavorable, and corrupting to the human mind : They operated with a certain and constant tendency to destroy the moral virtues of humanity, candor, and benevolence ; and to produce the spirit of bigotry, intolerance, revenge and mutual hatred. It was not possible for the men that were constantly endeavouring to injure and destroy, to love and do good to one another ; instead of this, they were constantly learning to hate and to abhor each other. The spirit of intolerance and bigotry seems to be unavoidably connected with ignorance, and to be incurable by any thing but science and philosophy. This raving, fiery spirit of the partisans, derived new force and inflammation from the perpetual wars in which the colonies were engaged. The people in the French colonies were trained up to believe that they belonged to a monarch and to a church, which were absolutely infallible ; the different sects and parties in the English colonies did as firmly believe, that they themselves were never in the wrong. To carry

their political and theological prejudices and hatred to the highest degree, nothing was wanted but the cruelties and barbarities of an Indian war. Both parties very justly reproached each other, for the inhumanity and wickedness of their proceedings; and they well knew that the Indians in one part of the country, were under the management of the French; and in another, under the direction of the English. Policy and disguise would of course avail themselves of all the help and assistance that could be derived from the pretence or abuse of religion, to represent the opposite party as faithless, corrupt, heretical, opposers of God, and all that was good.

To carry this scene of mutual hatred, bigotry and abuse, to its greatest height and extent, time and experience had shown that the surest way was to put it under the management of a set of intolerant priests, *genus irritabile vatum*, and to them, the politicl leaders looked to afford a powerful assistance, by representing their enemies, under an odious and awful character. In these exploits the English and the French seem to have been very successful in destroying the spirit of candor, charity, and benevolence; and in promoting that of mutual aversion, extreme bigotry, and intolerant hatred.

While the moral tendency was thus unfortunate and corrupting, the effect of continued war on the *literary and scientific character and pursuits of the colonies*, was equally unfavorable and degrading. It was the peculiar felicity of the first settlers of the English colonies that they were descended from the most enlightened

part of Europe, and at a time when considerable advances had been made in the arts and sciences. The clergy, and several of the leading men that came over with the English, when they made their first settlements, had been educated at the universities of Cambridge or Oxford. They were well acquainted with classical literature, had been instructed in the philosophy of that day, and were eminent for their knowledge in the theological debates and controversies that agitated the English nation at that time. Disgusted with the English hierarchy, and viewing with horror the arbitrary proceedings of Charles the first, and his archbishop Laud, they removed into America, to be out of the reach of prelatical power and persecution. Without a preconcerted plan of ecclesiastical power or policy, they adopted such a method of ecclesiastical proceedings, as utility, time, and circumstances suggested. Happily for themselves and for their posterity, nature and christianity led them to adopt one, that was equally favorable to the interests of morality and religion; and to the rights and liberties of mankind.

JUSTLY pleased with the form, in which the christian church appeared in the new world, and apprehensive of the important consequences it might have on society, they wished to give to the church and to the country, all the advantages that might be derived from the influence of the arts and sciences. So early as the year 1638, they began the foundation of a College at Cambridge; and were warmly engaged in making provision to educate their youth

in useful knowledge and to supply their churches with well educated and learned ministers. In 1700, the colony of Connecticut followed the example of Massachusetts, and founded a seminary now called Yale College. Both these societies received much assistance from the civil government, and were warmly supported and encouraged by the clergy. And it was from them, that almost all the acquaintance which the country had with the arts and sciences, was derived. To increase the influence and importance of these colleges, and to preserve a decorum and uniformity in their churches, their ministers wisely established a rule to discourage the application of those to the ministry, who had not received an education at their own or at some other College.

Thus educated in the best manner the state of the country would admit, the order of clergy appeared to advantage in the colonies. Among the doctrines which had divided the christian world, they had almost universally embraced the opinions of Calvin; but were not deficient in inculcating the duties of morality, and the maxims of practical virtue. In respect to their learning, piety, gravity, and regularity of conduct, this order of men were highly esteemed by their country; and several of them were eminent as writers, and popular preachers. With more strength and originality of genius than any former metaphysician, Edwards had gone further than any other man, to give decision and certainty to metaphysical theory and reasoning. In treating on the ancient controversies respecting fate and freewill, none of the

metaphysical writers had discovered so much ingenuity and acumen. But like all the rest, while labouring to establish the doctrine of fate, necessity, and liberty, he clearly proved that neither the calvinistic, nor the arminian theory, nor the metaphysical way of reasoning, ever could explain or clear up the subject; and that the connecting truths or principles, which would serve to show the consistency between the unalterable councils and decrees of heaven, and the free agency and accountability of men, were not to be found in any of the metaphysical systems, that had yet been announced to the world; and that no such theory or system ever could explain, or be applied to the powers or actions of animals.

Others of the clergy had wrote to great advantage in the controversies with the church of England, and on the doctrines and claims of the church of Rome. But the country had not yet been agitated by any controversies respecting the trinity, the incarnation, the atonement, the necessity, evidence or reality of miracles, prophecy, or revelation, and perhaps no order of clergy ever were more useful to mankind, than those who had directed the religious affairs of the colonies at this period.

In the courts of law, the business was as well done, and justice was as impartially administered, as in any part of Europe. The common law of England was the rule of proceeding, and happily for the country, neither the provincial governments, the judges, or the lawyers had attempted to alter or to improve it. What related to the local circumstances of the colonies

was regulated by provincial laws ; and these the colonies were much better qualified to determine, than any European kings or parliaments. The ludicrous absurdities which the system of monarchy had introduced into the English statutes, did not apply to the practical course of events or of business in the colonies ; and their courts had no occasion to compute on the corruption of blood, the respectability of an infamous nobleman, or the sacredness of royal vice or folly. Most of their lawyers were men of a liberal education ; and several of them were among the most respectable and useful men in the country. But the time was not come to attempt to improve the law or the profession. No books of reports, no treatises on law or evidence, or any thing appropriate to a colonial system of law or practice had appeared ; all was in subjection to British precedents and to British importance.

The medical part of science and the branches more immediately connected with it, had as yet only bore a practical aspect. The physicians were as useful and practised with as much success in the colonies, as in any part of the globe, and no where did the people enjoy more health ; but their knowledge and success was much more the result of observation and practice, than of theory or system. No medical schools or professorships, no regular courses of surgery, chemistry, or clinical instruction, had at that time been instituted in the colonies ; and scarcely any thing had been done in the materia medica, in botany or in the collections of natural history. One important discovery was introdu-

ced in the colonies as early as it was in Great Britain. Dr. Cotton Mather, of Boston, had observed in the philosophical transactions, an account of the manner in which inoculation for the small pox was practised in the Turkish dominions. At his recommendation, Dr. Boylston, one of the physicians at Boston, introduced it at that place, in the year 1721. It met with success; and with the opposition, which is always to be expected, when a new method of practice is introduced. But although it exposed the first promoters of it to a considerable share of professional and popular resentment, it was eventually attended with much success, and almost universally adopted.

There was an accuracy and a minuteness in the historical productions of the country, which marked the feelings, pursuits and views of the colonies with much precision; but the transactions of which they treated, appeared too local and too small, to engage the attention of the world. *Hubbard* wrote a very accurate and useful history of the Indian Wars in New England. *Moreton* wrote a Memorial, which was of use to preserve the memory of the first settlers and their proceedings. But the most that was done this way, was by *Dr. Cotton Mather*, of Boston. With a singular genius, with much of the Hebrew literature, and a warm imagination, in a book to which he gave the title of Magnalia Christi Americana, he wrote minute and lengthy accounts of all the ecclesiastical, historical and literary proceedings of the country till the year 1692. *Penhallow*, at Portsmouth, gave an account of the Indian Wars; and *Doug-*

lass, at Boston, wrote a historical and political summary of the affairs of the colonies to the year 1750. In Virginia, *Stith* and *Beverly* published histories of that colony to the year 1700. In New York, *Colden* wrote the history of the five nations of Indians, in 1747; and in 1756, *Smith* published a history of the province to the year 1732. In these productions there were authentic and useful records of the early proceedings of some of the colonies. They were viewed in Europe as too small matters to engage the public attention; and it was not suspected by her historians, that the American writers were describing principles and proceedings, from whence the greatest of all human empires was destined to arise.

SPECULATIVE science was not much wanted, and had not been much cultivated in the country. In mathematics no attempts had been made to cultivate the higher branches; what was necessary and applicable to the affairs and business of life, was generally, and well understood. In natural philosophy the prospect and attention was more engaging. In the beginning of the eighteenth century, Keil had introduced in England, the experimental method of teaching this science. Desaguliers had greatly improved the plan, and taught it systematically in a regular course of experimental lectures. Isaac Greenwood, a young gentleman of Boston, educated at Harvard College, had been in London, attended Desagulier's lectures, and had been his assistant in the business. Mr. Hollis, of London, in the year 1726, established a professorship of mathematics and natural philosophy in Harvard

College, purchased an apparatus and sent Greenwood as his professor to Cambridge. Greenwood of course introduced the business at Harvard College, in the advanced state the science had assumed at London. A taste for this science being thus introduced, it became the favorite study of the young gentlemen who were under a course of education ; but as no individual had any philosophical instruments, it was seldom pursued any further than a course of academical education had carried it. In astronomy the attention had been carried a little higher. In 1694, Brattle began to make some astronomical observations at Cambridge. Robie pursued the same business, and Winthrop was attentive and accurate in observing the celestial phenomena. Godfrey, at Philadelphia, by the strength of an untaught genius, discovered the sextant, which now bears the name of Hadley. The observations and the names of these gentlemen, appear to advantage in the transactions of the Royal Society of London.

In natural history some useful observations and accounts had been published relative to the weather, climate, vegetables and animals, in Carolina, Virginia, Pennsylvania, New York and Massachusetts ; some of them were by natives of the colonies, but the most by persons who came from Europe to reside in the country. Classical knowledge was taught with reputation and success in the Colleges, and by the grammar schools. All the men of education had been instructed and were acquainted with the works of some of the most eminent orators and poets of antiquity. Colleges had been

founded at Cambridge, New Haven, Williamsburg, Princeton, Philadelphia and New York. But the genius of the country had not been employed in attempting any considerable productions in poetry, oratory, or the fine arts. In one article however, the New England colonies exceeded the customs and attainments of Europe: In every considerable town they had a grammar school, and all the children were taught to read, write, and go through the common rules of arithmetic; and nothing was more uncommon or disreputable, than to be unacquainted with these arts. This was the knowledge the colonies most of all needed, and this they had made universal; much further they could scarcely expect to go, while destruction was every where around them. War, French and Indian war and ravages, engaged the attention of the whole country; exhausted her finances, and required her constant attention and exertion. And while this was the case, neither the resources, the attention, or the genius of the country, could be much applied to the pursuit or cultivation of science. The men who sat down to contemplate such matters, would have their attention forced to other subjects; they must fly, or like Archimedes be slain over their problems; and in almost every process they might say of their country.....multo spumantem sanguine cerno.

The same cause that thus proved unfriendly to morals and science, was also greatly injurious to the *population* of the country. In the English colonies it was found from the registers of life and death which had been kept in some

of their oldest towns, that the number of years in which the inhabitants by their natural increase would double their numbers, did not amount to more than twenty four, or at most twenty five years. Such observations lead to the most flattering calculations, respecting the future population and number of the people; but in most of the colonies, these calculations entirely failed. In none of the provinces were the people more industrious, sober, or agricultural, than in Massachusetts and New Hampshire. In the year 1713, it was found that there was not double the number of people in Massachusetts to what there was in 1675. The same was found to be the case in 1762; at that time the number of inhabitants had not doubled from the year 1722.* The same observation applied with still greater force to New Hampshire. The cause could not be found in emigration; nor did it arise from any uncommon mortality or sickness. Nothing of this nature had taken place in either of those provinces, except the losses occasioned among the children by the disorder called the *throat distemper*, in 1735 and 1736; and this was local, and of a short duration. The cause was in the constant state of war, in which those provinces were involved. From 1675, when the Indian war under Philip first began, to 1713, five or six thousand of the youth of the country perished by the enemy, or by sickness contracted in the service. From that time to the conquest of Canada, there were constant calls upon the young men to engage either in offensive or defensive service. The numbers that

* Hutchinson's Hist. Massachusetts, Vol. 2, p. 183.

perished in these services were unavoidably great. If we may judge from the course of things in the colonies, nine out of ten of these young men would have been fathers of families. Cut off and wasted away by an incessant scene of war, the population of the whole country was checked and prevented. At the end of fifty years, for every young man slain in the wars the loss occasioned to the country was nearly four inhabitants; so many more would probably have been found in the country at the end of that period, had the colonies remained in a state of peace and tranquility.

On the *agriculture*, the settlement and cultivation of the country, the effect of war was still more pernicious. The most important of all pursuits to the colonies, was the settlement of their country. On this depended their defence, their strength and their existence. In the most peaceable and quiet times, this was a matter of much difficulty, hardship, labor and suffering. To collect together a company qualified and disposed for such enterprise; to quit the ease and enjoyments of domestic peace and abundance; to carry their families through the woods, mountains, rivers and swamps, where there was no road or track; to construct huts of logs and the bark of trees, to cut down the woods and open the lands to the influence of the sun and the air; to fence, sow, reap and gather their crops; this was the beginning of the scene, and a series of difficulties which must in some measure be gone through the first year of their removal. They had then to watch and guard their cattle and their crops against the ravages of the

bears, wolves and other ferocious animals, with which the country every where abounded ; and at the same time to raise their provisions and make their raiment. In the best possible state of things this was a scene of hard living, of hard labor and great suffering ; and it was not in a less period than five or six years, that the new settlers could procure the necessaries of life in such quantities as to be comfortable ; or in any considerable degree to be free from the danger and suffering of hunger and nakedness.

Against these difficulties however, they struggled with success, and in a few years found their circumstances more comfortable and encouraging. But when a war broke out, their dangers and their sufferings often seemed to be without measure, and without end. An attack was suddenly made upon one of their settlements, when the inhabitants were unprepared for defence, and without suspicion of danger. The first notice of the approach of an enemy, would be about break of day ; the Indians would assault every house at the same time, slay such of the inhabitants as made any resistance, lead the others away prisoners, burn the houses and buildings, and slaughter all their cattle. In this way, several of the plantations were destroyed, rebuilt, destroyed again and then resettled. These were scenes to which every part of the frontiers were exposed, at the breaking out of every war. The effect was, the most advanced settlements were broken up every war ; the inhabitants returned to the old towns, and all that their labor and sufferings had procured for many years, was often swept away in one day. It was

impossible that the settlement of the country should proceed with its natural progress, in such a state of things. And hence the colonies were obliged to adopt a debilitating caution, reserve, and slowness, in making their advances, and extending their settlements into the country.

In the year 1752, a proposal was made to effect a settlement on the rich lands at Coos, on Connecticut river. It was proposed to lay out one township on the east side, and another on the west, at the place now called Newbury, in Vermont. The governors of Massachusetts and New Hampshire approved of the proceedings, and a large number of persons engaged in the enterprise. A party of men were sent up the river in the spring, to view the lands, and lay out the proposed townships. Some of the Indians of the St. Francois tribe observed their motions, suspected their design, and forbade their proceedings; at the same time they sent a message to the commander of the fort at Number Four, informing him that they would not suffer the English to settle at Coos. The Indian mandate was communicated to the governors of the two English provinces, and such was their fear of the Indians, that they meekly and quietly laid aside the whole business. To such mortifying disgrace and caution, was the agriculture, the settlement and the cultivation of the country, constantly subject. And yet on these, the safety, the wealth, strength, population, and commerce of the whole country depended. Of all objects this was the most important, to the colonies; and the men, who in that state of things settled a new town, did more important

services to their country and to mankind, than those who amused all Europe with an astronomical observation, a physical experiment, solved a new problem, or wrote an elegant poem, or a celebrated volume of history or philosophy.

The *political* effects of the wars were also greatly dangerous, and injurious to the colonies; they kept them in an almost absolute dependence on the European powers and monarchs. It was not with an expectation of deriving any assistance from their European sovereigns, that the first settlers came into the eastern parts of America; it was to get rid of their ecclesiastical authority and intolerance, that they left their native country. When they arrived here, it was in consequence of a patent from James the first; and they understood their charter as a sacred compact, describing the grants that were made to them by their sovereign, and the nature of the allegiance that they were to bear to him. Their ideas of civil subjection were that birth was not a necessary or an unalienable cause of submission, to any civil government; but that when they left their native country, all the obligation they were under to the king of England, arose from voluntary compact; from their own agreement and act in accepting their patent, and by that entering into a voluntary contract of submission and obedience to the king of England. They had no doubt but that the country to which they came, in respect to its soil, dominion, lordship and sovereignty, belonged to the Indians, and not at all to the European monarchs; and that when they had fairly purchased these of the rightful owners, they had a right to

set up what forms of governments they pleased, consistent with their patent and charter, by which they had engaged their future allegiance to the king of England.* Whether these principles were, or were not in conformity to the principles of the English laws or monarchy, they were certainly founded on the law of nature; and were therefore of an earlier origin, and of a more sacred authority than any English law ever could be, which considers birth not only as a local, but as a perpetual and unalienable cause of civil subjection.

In opposition to every sentiment of this kind, the English kings believed that every child born in their dominions, or derived from any of their subjects, belonged to them; and that his very birth implied an obligation to constant, perpetual and unalienable allegiance. In conformity to their principles, they soon discovered that they meant to regard or disannul their patents as they pleased; to alter or set aside their charters; to frame, destroy, or alter the colonial governments as they chose; and with the concurrence of their parliaments, "to bind them in all cases whatsoever." It is not possible to form any idea of the most absolute, despotic, tyrannical power, that can carry its claims beyond this.

The colonies, though holding very different political principles, were not in a state to contend with their sovereigns. Surrounded with enemies and involved in wars, both the English and French colonies looked to their kings for assistance; and while the one met with this kind of help, it became necessary for the other

* Hutchinson's Hist. Massachusetts, Vol. 1, p. 231.

to seek the same kind of assistance. A dependence on and subjection to the European powers and monarchs of course took place, which excluded every idea, and every desire of independence; and the colonies viewed their relation and connection with the European governments from which they descended, as a matter of necessity, safety, and the highest honor. The British kings and ministers believed that the science of government contained such profound and sacred mysteries, that the people could neither understand nor manage them: the people in the colonies were in such a state of political impotency and submission, that they were in fact looking to the European kings and ministers, frequently unacquainted with any part of the business, to manage and direct their governments. This dependence of the colonies on the European kings was attended with many, and with great disadvantages. It embarrassed and perplexed their own governments, encouraged the ambitious and intriguing to be perpetually complaining and meddling, restrained their trade and commerce, prevented the most necessary and useful manufactures, subjected them to injurious restraints, confined their business and pursuits within narrow limits; and was calculated to keep their minds in a state of perpetual infancy, inactivity and weakness. And it was not their own desires and inclinations, but the folly and oppressive policy of the British minister and king, that taught them to study their rights and to understand the danger of submission to their European masters.

Such was the colonial system of war. Hav-

ing both an American and an European origin, it was not to be expected but that from the one or the other of these sources, it would be almost perpetual ; and while it continued the evils that were connected with its moral, literary, physical, agricultural and political effects, could not be avoided. In Europe, when their monarchs were engaged in such contests, which ever party gained an increase of territory, all the sovereigns obtained an increase of wealth, of power, of dependents, of influence and authority. It was evidently their advantage to have war as frequent and constant, as the finances and circumstances of their kingdoms would admit. In the colonies all was the reverse. The system of war served here to inflame and imbitter the minds of men, to keep them unacquainted with the arts and sciences, to retard the population, and prevent the settlement of the country ; and to keep the colonies in a hurtful and disgraceful dependence on and subjection to European kings and nations. And it was not till they rejected this degrading submission and dependence, that they arose to their proper rank and station among the nations and powers of the world.

APPENDIX.

No. I.

An Account of the Variation of the Magnetic Needle, in the Eaſtern States. CHAP. 1. p. 22.

IN laying our lands in America, the direction of the lines, is generally taken by the Magnetic Needle. The inſtruments which have been generally uſed, are the Plain Table, or the Circumferentor, divided into degrees, and fitted with a Magnetic Needle of three or four inches radius. Had the greateſt poſſible care been taken by able mathematicians, it would not have been poſſible for them, with ſuch inſtruments, to have avoided many errors and miſtakes. But in ſcarcely any inſtance has the variation of the needle been known, or at all attended to. Many, and almoſt endleſs controverſies and lawſuits, have ariſen from this cauſe. In many inſtances no data could be found, by which it was poſſible to come to a juſt deciſion; the variation of the Magnetic Needle, at the times when the conteſted lines were run, being unknown. On ſuch accounts, the knowledge of the Magnetic variations in the inland parts of America, is become a matter of great importance to the people; their intereſt and property in many caſes, being much affected by it.

From the year 1302, the directive power of the Magnet has been employed with great ſucceſs, in the affairs of navigation. But the firſt account that we have of any obſerved variation in its direction, was by Columbus, in the year 1492, in his firſt voyage to America. Until that time, philoſophers uniformly believed that the pole of the Magnet, exactly coincided with the pole of the earth; and they had no idea of any ſuch thing, as a variation. Amidſt the uncommon ſcenes of difficulty which oppoſed the views, and exerciſed the genius of the diſcoverer of America, when he had advanced two hundred leagues weſt of the Canary Iſlands, his compaſs began to fail him; and it was found not to point to the pole of the earth, or exactly north, but one degree to the weſt of that point. From that time the variation began to be obſerved, and became more and more known. For the laſt century and a half, mathematicians have made it a regular part of their buſineſs to obſerve it, in different parts of the earth; with the *annual* alterations that are conſtantly taking place.

In the year 1723, a very accurate obſerver, G. Graham, of London, diſcovered that the magnetic needle had a *diurnal*, as well as an annual variation. And it is now well known to philoſophers, that from about eight o'clock in the morning, the Magnetic Needle verges to the weſt, until about two o'clock in the afternoon. When it has attained its greateſt weſtward variation, it gradually returns to the eaſt, until about eight or nine o'clock in the evening; when it becomes ſtationary, until the next morning. Tables expreſſive of this *diurnal* variation are become common; and are to be found in the tranſactions of all philoſophical ſocieties. Thus in the moſt regular ſtate of the Magnetic Needle, it is conſtantly ſubject to two variations; an *annual* and a *diurnal* one.

The effect of theſe variations are at all times ſuch, that the Magnetic Needle can never give to the ſurveyor who follows its directions, a ſtraight or an accurate line. And it ought not to be uſed at all, where the buſineſs requires great accuracy and preciſion. It is however ſcarcely practicable in America, to ſubſtitute any thing better in the room of it: Moſt of the lines which have been already run by ſurveyors, were run by the Needle; this

is much the moſt convenient inſtrument that can be carried, or uſed in the wonds; the expence of running lines any other way, would be too great for individuals to bear; and the ſurveyors are not qualifiſed to run them by the true meridian. For ſuch reaſons it is probable that the Magnetic Needle will ſtill continue to be the inſtrument, by which the lines will be run, and the townſhips be laid out in America. We muſt therefore endeavor to provide the beſt remedy we can, for an error or evil, which we cannot eaſily remove. The beſt remedy which the caſe admits of, is an accurate obſervation of the variation of the Magnetic Needle, at the time when diviſional lines are run. This ſhould be done by able mathematicians, and in as many places in a ſtate, as may be. Such obſervations will afford the beſt direction, ſurveyors will be able to find, to enable them to determine what is the real or true direction of their Magnetic lines.—It is with this view, that the following Table is ſubjoined.

Magnetic Obſervations made in Canada, and the Eaſtern States of America.

State.	Place.	Time.	Variation	Obſerver.
Canada.	Quebec.	1649	16° 0′ W	
		1686	15 30	Des. Hayes.
		1785	12 30	Holland, Surveyor General of Canada.
		October 1793	12 5	
	Three Rivers.	1785	9 30	
	Montreal.	Auguſt 1749	10 38	M. Gillion.
		1785	8 24	Holland.
Vermont.	North line of Vt. 20 miles eaſt of Con. riv.	1785	7 40	Whitlaw, S. G.
	North line of Vt. at Connecticut river.	May 13, 1806	9 0	Dr. Williams.
	Burlington.	March 3, 1793	7 38	Dr. Williams.
	Rutland.	April 17, 1789	7 3	
	Pownal.	Sept. 30, 1786	5 52	
N. Hamp. Maine.	Penobſcot bay.	June 15, 1605	11 15	Weymouth.
	Penobſcot, fort Pownal.	July 18, 1761	8 0	Dr. Winthrop.
	Falmouth.	1763	7 45	
	Kittery point.	1771	7 46	Holland.
	Portſmouth.	1771	7 48	Holland.
	Hinſdale.	1772	6 ?0	Wright.
Maſſachuſetts.	Newburyport.	Auguſt 6, 1781	7 18	Dr. Williams.
	Beverly.	Auguſt 2, 1781	7 2	Dr. Willard.
	Cambridge.	1742	8 0	Dr. Winthrop.
		1757	7 20	
		1763	7 0	
		June 20, 1782	6 46	Dr. Williams.
		June 4, 1788	6 38	
	Wrentham, at Angle Tree.	April 7, 1785	5 46	Dr. Williams.
R. Iſland.	Northeaſt corner of Rhode Iſland.	1741	7 30	Cms. f. r. c. I. b. R. I. & Mas.
	Providence.	June 1769	6 30	Dr. Weſt.
Hartford in Connecticut.		Sept. 18, 1786	5 25	Dr. Williams.
Newyork.	Northweſt corner of the Oblong.	Sept. 25, 1786	5 3	Dr. Williams.
	Newyork.	1686	8 45	Wells, S. G.
		1724	7 20	Gov. Burnet.
		Sept. 18, 1750	6 22	Alexander.

No. II.

Observations on the change of Climate in Europe and other places. CHAP. IV. p. 80.

THE change of climate which has taken place in North America, has been a matter of conſtant obſervation and experience. It ſeems to be the univerſal opinion of hiſtorians and philoſophers, that there has been a more remarkable change of climate throughout all Europe. There are ſeveral phenomena from which it may be ſhown with much certainty, that this has been the caſe in ſeveral places.

In the land of Paleſtine, about the latitude of 30 or 31 degrees, north, the author of the book of Job makes uſe of ſuch language as this, "Haſt thou entered into the treaſures of the ſnow? Or haſt thou ſeen the treaſures of the hail?—Out of whoſe womb came the ice?—And the hoary froſt of heaven, who hath gendered it?—*The waters are hid as with a ſtone, and the face of the deep is frozen.*" Job xxxviii. 22, 29, 30. Theſe are probably the words of Moſes; and they are expreſſive of that degree of cold, in which the ſurface of water is ſo ſtrongly frozen as to conceal its fluidity, and reſemble the conſiſtence and hardneſs of ſtone. The degree of heat in which this effect takes place in rivers, ponds and large collections of water, I have generally found to be about 25 degrees of Farenheit's thermometer; with a duration of a week or ten days. We ſhall not therefore be far from the truth, if we conclude that the extremity of the cold in the land of Midian, could not have been leſs than 25 degrees, in the days of Moſes: And that ſuch a cold, was of ſome days duration. Such was the *degree*, and the *effect* of the cold in the land of the Midianites, about 32½ centuries ago.

In the writings of David we have alſo a deſcription, of what was eſteemed a ſevere ſeaſon. "He giveth ſnow like wool: He ſcattereth the hoar froſt like aſhes. *He caſteth forth his ice like morſels:* Who can ſtand before his cold?" Pſalm cxlvii. 16, 17. This account muſt have been written at leaſt 28½ centuries ago. The language of the poet does very ſtrongly expreſs the effect, which the cold had on the feelings of men in that warm climate. But the account which he gives of the appearance and form of the ice, denotes a leſs degree of cold than what took place in the days of Moſes. When the degree of heat is but 31 degrees of Farenheit's thermometer, the ice may appear to be caſt into the form of morſels and cryſtals: And this ſeems to have been the greateſt degree of conſiſtence, extent and hardneſs, in which the poet had either ſeen it, or conceived of it. It ſhould ſeem therefore that from the time of Moſes to David, the cold had abated in the land of Paleſtine: That four centuries before, it hid the waters as with a ſtone, and cauſed the face of the deep to be frozen: But that now it only caſt out the ice like morſels or cryſtals. The difference in the degree of cold neceſſary to produce theſe effects, is about 6 degrees.

We have here an account of the climate in the land of Paleſtine, ſo far back as 28 and 32 centuries. Inſtead of treaſures of ſnow, hail, and ice, a frozen deep, and cold which can ſcarce be ſtood before, the inhabitants of that country now find a hot, ſultry climate; in which ſnow and ice are never ſeen. We have not an account of any meteorological obſervations made at the places, where Moſes and David lived. The climate is probably much the ſame at thoſe places, as it is in others of a ſimilar latitude and ſituation. We may therefore make uſe of thoſe which have been made at Grand Cairo, as the moſt applicable, and the beſt which we can find, to give us an idea of the temperature of the winter in thoſe parts of the globe. Grand Cairo lies in the latitude of 30° north. According to Mr. Niebur's

obſervations made there in the years 1761 and 1762, the mean heat of thoſe years was 73°, 65. The mean heat in the month of January was 57°; that of February was 63°.* It is but ſeldom that the mean heat of the ſevereſt week in the winter, falls more than 7 or 8 degrees below the mean temperature of the whole month. This will give 49 degrees, as the mean temperature of the ſevereſt week, in the winter at Grand Cairo. And this cannot be greatly different from the temperature of the winter, in the land of Paleſtine. From this way of computation, we ſhall have 24 degrees of Farenheit's thermometer, as the alteration which has taken place in the ſeverity of the winters in that country, ſince the time of Moſes.

The climate in Italy is alſo found to be very different now, from what it was 18 centuries ago. Virgil, the celebrated poet, was diſtinguiſhed alſo by his knowledge in agriculture. In his Georgics he is frequently giving advice for the ſecurity of cattle, againſt the dangerous effects of ice and ſnow. His directions were deſigned for the country round Mantua or Naples, his native place, in the latitude of 41°. Mentioning Calabria, the moſt ſouthern part of Italy, he ſpeaks of the freezing of the rivers, as an event that was commonly to be expected. Pliny, Juvenal, and Ælian, writers in the firſt and ſecond centuries, ſpeak of ice and ſnow as what was common in Italy. One of theſe writers, Ælian, has a chapter which conſiſts altogether of inſtructions how to fiſh for eels, when the water is covered with ice. The degree of cold neceſſary to effect this, cannot be eſtimated at a leſs degree than 25. From the meteorological obſervations which were made at Rome in the year 1782 and 1783, it appears that the mean heat in the month of January at that place, is now 46 degrees; and that the mean heat of the coldeſt week in the winter was 42 degrees;† 17 degrees greater than that, in which the permanent freezing of rivers takes place. The change of climate therefore in Italy during the laſt 18 centuries, cannot have been leſs than 17 degrees; but from the inaccuracy of the ancient accounts it may have been many more.

A ſimilar change has taken place in the country round Conſtantinople, and the Euxine or Black Sea. This we collect from the works of Ovid. This celebrated poet was baniſhed to Tomos, by the Roman emperor. This place is in the latitude of 44°; and lies near the coaſt of the Euxine Sea. The poet ſpent ſeven years in his baniſhment at this place, about the middle of the firſt century. He informs us that he ſaw the Euxine Sea covered with ice: That he walked upon this ice; and that oxen and carriages paſſed over it. He goes farther, and adds, that when he called for wine in a ſevere ſeaſon, it was preſented to him in a ſtate of congelation: And that the ſnow in many places, was never diſſolved during the ſummer ſeaſon. Tournefort obſerves that in the days of Conſtantine, the ſtreight of Byzantium was frozen over: And that in the year 401, the Euxine Sea was covered with ice for 20 days together. We have not any meteorological obſervations to ſtate with exactneſs, what the preſent temperature of that climate is. But nothing would be more uncommon and extraordinary, than to ſee this ſea frozen over now. In 1667, the Turks were greatly aſtoniſhed at the appearance of ſome ice at Conſtantinople: And in all the adjacent country, inſtead of a frozen ſea, frozen wine, and perpetual ſnow, they have now a fine moderate warm climate; one of the moſt luxuriant, and delightful, that is to be found upon the face of the earth. So far as we can judge from the general phenomena, the change of the climate there, has been fully equal to what has taken place in Italy.

* Voyage, Vol. I.

† Ephem. Soc. Meteor. Palat. Obſervationes Romanæ, Tom. II & III.

The ſame alteration has been obſerved upon the Alps and Appenines. Theſe are the higheſt mountains in Europe, and divide Italy from France, Switzerland and Germany. The march of Hannibal's army over theſe mountains, was one of the moſt memorable exploits of antiquity. In their accounts of it, Livy and Polybius in almoſt every line, are mentioning the extreme difficulty and ſufferings which aroſe from the ſevere froſts, ice and ſnow. Theſe mountains are eaſily paſſed now. Armies have frequently croſſed them without any uncommon ſufferings, from the time of Francis the firſt.*

The change of climate has been alſo very remarkable in Germany. Two circumſtances have marked this with certainty. By the account of Diodorus Siculus: 1. "The great rivers which covered the Roman provinces, the Rhine and the Danube, were frequently frozen over, and capable of ſupporting the moſt enormous weights. The barbarians who often choſe that ſevere ſeaſon for their inroads, tranſported without apprehenſion or danger, their numerous armies, their cavalry, and their heavy waggons over a vaſt and ſolid bridge of ice. Modern ages have not preſented an inſtance of a like phenomenon. 2. The reindeer, that uſeful animal, from whom the ſavage of the north derives the beſt comfort of his dreary life, is of a conſtitution that ſupports and even requires the moſt intenſe cold. He is found on the rock of Spitzberg, within ten degrees of the pole; he ſeems to delight in the ſnows of Lapland and Siberia. But at preſent he cannot ſubſiſt, much leſs multiply in any country to the ſouth of the Baltic. In the time of Cæſar, the reindeer, as well as the elk and the wild bull, was a native of the Hercynian foreſt, which then overſhadowed a great part of Germany and Poland."†

Theſe accounts will aſſiſt us to form ſome general idea of the climate of Germany at that time. The freezing of the Rhine and the Danube is mentioned, as an event that was annually to be expected; what the barbarians always found to take place in the ſevere ſeaſon; and to ſuch a degree, as to afford them a certain and a ſafe paſſage for the heavieſt burthens, and for the largeſt armies. This account of the ſtrength, firmneſs, and duration of the ice, conveys the idea of a winter equal in all its effects, to that which takes place in the uncultivated parts of North America. The rivers are here conſtantly frozen every winter. The inhabitants find by conſtant experience, that at that ſeaſon of the year they can tranſport their heavieſt effects, and the greateſt weights, with ſafety, certainty and convenience. The mean heat of our winters in ſuch places, is from 15 to 20 degrees. In ſuch a cold, the rivers and ſtreams will be ſo conſtantly and ſteadily frozen, that the inhabitants find a certain and a ſafe paſſage every winter, over the rivers and lakes. This ſeems to have been very much the ſtate of the ancient German winter. From the obſervations which were made at Vienna, latitude 48°—12′ north, in the years 1779 and 1780, it appears that the mean heat there in the month of January was 27°,5; in February it was 33°,23. At Ratiſbon, latitude 48°—56′ north, in the years 1781 & 1782, the mean heat in the month of January was found to be 30°,52; that of February was 30°,76. At Manheim, latitude 49°—27′ north, in the years 1781 and 1782, the mean heat in the month of January was 35°,08; in February it was 35°,8.‡ The mean of theſe, 31°,3 in January, and 33°,26 in February, will accurately expreſs the preſent temperature of the German winter on the Danube and the Rhine. The time when the barbarians be-

* Phil. Trans. Vol. LVIII, for 1769, p. 58, &c.
† Gibbon's Roman Hiſtory, Vol. I, p. 346.
‡ Ephem. Soc. Meteor. Palat. Tom. I, II, III, &c.

gan their inroads into the Roman provinces was about the year 222. According to this computation, the change of climate in Germany has been between 11 and 16 degrees, in 15 and a half centuries.

The other inſtance mentioned by the hiſtorian, and which ſerves to mark the climate in Germany in the time of Cæſar, was the appearance of the reindeer. The warmeſt countries in which he now reſides, are Sweden, Ruſſia & Lapland. From the obſervations made at Abo, latitude 60°—27′ north, from the year 1750 to 1761, the mean heat in the month of January, was found to be 19°,58; that of February, was 21° 38. At Peterſburg, latitude 59°—56′ north, from the year 1762 to 1777 the mean heat in January, was 10°; in February, the mean heat was 16°,46. The mean of theſe, 14°,8 in January, and 18°,9 in February, is the temperature of the winter in that part of the globe.* Theſe are the warmeſt climates in which the reindeer does now ſubſiſt. It may therefore with much probability be inferred, that this was the temperature of the German winter in the days of Cæſar, 18 and a half centuries ago. Hence the alteration of climate in Germany during that ſpace of time, has been about 16 degrees. It ſeems to be a confirmation of the truth and propriety of theſe different methods of computation, that they both afford much the ſame reſult.

From theſe accounts it appears with a deciſive evidence, that the climate, in the courſe of ſeveral centuries, has remarkably changed at Paleſtine, in Italy, around the Euxine ſea, at the Alps, and throughout all Germany. Through all this vaſt extent of country, the climate is now become 16 or 17 degrees warmer than it was 18 centuries ago. The continent of America in ſimilar latitudes, is ſtill ſubject to a great degree of cold. If the meteorological obſervations which have been made at Williamſburg, Cambridge, Quebec and Hudſon's Bay in America, be compared with thoſe which have been made at Algiers, Rome, Poictiers and Solyſkamſki, places whoſe latitudes are nearly equal;† it will be found that the European continent is now 12 degrees warmer than that of America. Many inquiries and ſpeculations have been propoſed to account for this extreme cold of America. From the accounts which have been mentioned, it appears that 17 or 18 centuries ago, the continent of Europe, inſtead of being 12 degrees warmer, was ſubject to a cold 4 or 5 degrees greater, than that which now takes place on the continent of America. The proper inquiries therefore ſeem to be, whence is it that the European continent is become ſo much more mild and temperate than that of America?—Whether the latter will not in a courſe of time become equally warm and temperate as the former?—Whether the climates of both will not gradually become more equal, uniform and moderate, than they now are?—And, whether cultivation is ſufficient to account for theſe changes? For whatever the cauſe may be, the fact ſeems to be certain, the heat of all that part of the earth, of which we have any ancient accounts, has been increaſing from the earlieſt ages.

* Kirwan's eſtimate.

		M. H.
† Algiers, latitude	36° —49′	72°
Rome	41°—54′	59°,5
Poictiers	46°—39′	53°,8
Solyſkamſki	59°	32°,5

No. III.

An account of Frogs dug out of the earth at BURLINGTON. CHAP. VI. p. 154.

THE accounts which natural hiſtory has recorded of the diſcovery of toads and frogs, in ſituations in which it has been ſuppoſed it was impoſſible they ſhould exiſt, have been of a ſingular and extraordinary kind.

A very remarkable inſtance of this nature, has lately fallen under my own obſervation. On October 9th, 1807, Moſes Catlin, Eſq of Burlington, was digging a well a few rods diſtant from his dwelling houſe. His houſe was about twenty rods ſouth of the College. on a hard gravelly ſoil and on the higheſt land in the neighborhood. When the workmen had dug about five feet below the ſurface of the ground, they found ſix frogs, which did not appear to be in a torpid or weak ſtate; but as ſoon as they were thrown out of the earth, diſcovered the full powers of activity and health. Two of theſe frogs lay together in the earth, the others were ſeparate: moſt. or all of them were covered, or lay under ſmall ſtones. October the 13th, two more of the ſame kind were found; ſeparate, but under ſmall ſtones as before October the 14th, in the morning five more were found, at the depth of about eleven feet from the ſurface of the ground. Two of theſe lay together, the others were ſeparate; none of them were covered with any ſtones, but ſurrounded with hard gravelly earth. Alexander Catlin, Eſq. a man of the moſt reſpectable character, aſſured me, that he ſaw the workmen dig up three of theſe frogs: and that another man was preſent, when the workmen dug up the fourth.

At my requeſt Mr. Catlin preſerved two of them in a tumbler. Eight hours after they were dug up, I viewed them with all the attention and care in my power. They were of the ſame kind as the frogs which are generally ſeen in this vicinity. One of them appeared to have attained its full growth; the other was not of the full ſize. Their bodies did not appear to be ſhrivelled, or in any degree emaciated, but full, plump and healthy. Their eyes were lucid and brilliant, without any appearance of defect. Their limbs ſeemed to be in perfect proportion and order; and their claws long. ſlender and delicate. Reſpiration appeared to be ſtrong and unembarraſſed; and carried on with as much eaſe and regularity as in any other frogs. On moving the cover from the tumbler in which they were confined, both of them jumped out from the glaſs, and hopped round the room; and we had to chaſe them ſeveral times round the room before we could catch them. They ſeemed perfectly well to underſtand the beſt way of evading our purſuit; did not attempt to leap againſt the wall or furniture, but kept in that part of the room where they were apparently beſt ſecured by the wall, chairs and tables. Nor have I ever ſeen more activity, ſprightlineſs, or ſtronger powers of life and action in any frogs, than what appeared in theſe two, eight hours after they were dug out of the earth; and had been preſerved in a tumbler, without any kind of food or nouriſhment. To render the evidence of theſe facts as compleat as the nature of the ſubject would admit, we preſerved both the frogs in ſpirits and exhibited them to the view of the ſtudents in the univerſity; and they are now in poſſeſſion of the preſident of that ſeminary. The workmen ſunk the well to the depth of about eighteen feet, but did not find any more of theſe animals.

October the 26th, the workmen were digging another well for Mr. Catlin, about eighty rods north eaſt of the College. The ſoil was of a looſe

gravelly kind. At the depth of eleven feet, they dug up a frog in this well. Upon examination, I found it was of the ſame kind, form, ſize and appearance, as the frogs in the other well; and had the ſame phenomena of health, vigor and activity. To aſcertain the internal ſtate and contents of this frog, we opened it. On diſſection, it was found to contain a ſmall quantity of blood. The heart, lungs and other entrails, were in a natural and perfect ſtate. The inteſtines contained a white mucus, of a middling conſiſtence. The internal parts neither appeared to be loaded with fat, or emaciated by leanneſs; but to be in a ſtate that denoted regular but moderate nouriſhment. And nothing like putridity, deficiency, or decay, appeared in any part of the animal. Uncomfortable weather coming on, the workmen did not ſink this well to any greater depth.

It is ſcarcely to be expected that more compleat evidence ever ſhould be found attending any inſtances of this nature: And whether we can account for them, or not, their reality cannot, I think, be called in queſtion.

In what manner ſhall we go about to explain the philoſophy of theſe frogs; or to account for their formation, ſituation, and life?

Could theſe animals have been produced in ſuch a ſituation by the earth? The doctrine of *equivocal generation* does not ſeem to have any thing in theory, obſervation or experiment to ſupport it. No one thing in nature appears to be the reſult of chance, or accident. Every plant, every tree, and every body in the whole ſyſtem of nature, is evidently the reſult of deſign, contrivance, and adjuſtment; and appears to be preſerved and regulated by ſtated and permanent laws. The object or the body is not to be named, in the heavens, or in the earth, which appears to be produced, to be governed, or to be moved by chance or accident; that is by no cauſe, or law at all. Leaſt of all is this to be expected in animals, every one of which has an appropriate form, conſtitution, inclinations, and manner of life, motion, and propagation. That men ſhould be produced by corruption, or that the rocks and woods ſhould engender ſtags and tygers, would be an aſſertion too improbable and ludicrous for folly to make, or for infidelity to believe. It has been contended that inſects are bred by corruption and putrefaction. Malpigi, Swammerdam, Redi and others have confuted this doctrine; and ſhown that it does not agree with obſervation. The reſult of their inquiries and obſervations is, that moſt of the inſects are derived *ex ovo*, and that they depoſit their eggs wherever they can find a fit place for incubation; in water, fleſh, fruits and vegetables, in or about the bodies of animals, in the feathers of birds, hair of beaſts, ſcales of fiſhes, and in every acceſſible part of nature. Nor will experiment help the doctrine of equivocal generation in any degree. From the corruption of a body ariſeth not activity and life, but a diſſolution of its parts. You cannot reduce a piece of fleſh to putrefaction, and out of that putrid maſs make an animal body, which ſhall have a head, a heart, entrails, veins, and blood veſſels; all of which are neceſſary to conſtitute a living creature. Nor can you take a piece of rotten cheeſe, or meat and make out of it a handful of mites or worms, any more than you can form it into lions or whales. A doctrine then which has nothing in theory, obſervation or experiment, to ſupport it, cannot be advanced with any appearance of probability to account for the formation of theſe frogs.

Could they have been preſerved or exiſted in the earth for a long number of years? This ſeems to have been the caſe, and does not appear to be contrary to the laws and phenomena of nature. Every animal that we are acquainted with, has apparently two modes of exiſting, ſleeping and waking. When awake, all the ſprings of nature ſeem to be active and in motion; when aſleep, the organs of the body ſeem to be ſuſpended as to their

activity and exertions, but the circulation of the blood, and the active powers of life ſtill remain. And from the one to the other of theſe ſtates all the animals of which we have any information, have a regular and natural tranſition. When wearied or reduced by activity and exertion, the animal frame relaxes and yields, and we find in reſt and ſleep both relief and refreſhment. When the body has been relieved and refreſhed by reſt, the powers of nature ſeem to be recruited, the pulſe gradually quickens, the organs of ſenſe reſume their functions, and the animal awakes from ſleep. In moſt animals, both theſe ſtates are neceſſary to his health and life; they regularly ſucceed each other, and the one is as natural and neceſſary as the other.

In ſome animals this alternate and regular ſucceſſion of ſleeping and waking is either not kept up, or it is ſubject to very long periods of time. Bears, Serpents, Toads, Frogs, Flies, and various other animals are known to live through the winter months in a *torpid* ſtate. At the approach of cold weather they retire into the earth, to the bottom of waters, or to ſome place of ſecurity, and do not appear again till the warmth of ſpring has ſoftened and vivified the earth. They then leave their places of concealment, and come forth into the atmoſphere; apparently weak at firſt, but not emaciated, lean, or deprived of their fleſh.

During this period of their torpid ſtate, the appearances are, that they exiſt without any regular ſupplies of food; but not without ſomething that operates to their preſervation, ſupport, nouriſhment, or continuation. As nature is not wearing away by continued activity, or by conſtant perſpiration, it ſhould ſeem that it does not require conſtant ſupplies of food, to recruit, what in the torpid ſtate is not much ſpent or waſted. An animal then may exiſt in the torpid ſtate without regular ſupplies of food or victuals, to reſtore or recruit that waſte of nature, which always takes place in the active, but does not ſeem to have much effect in the torpid ſtate of exiſtence. But ſtill, ſomething is neceſſary to preſerve the animal in that ſtate in which it went to ſleep, and fell into the inſenſible lethargy. In ſome animals, water anſwers this purpoſe; in others, earth contributes to the effect; in others, a rock, or a tree, or any thing that tends to preſerve and ſupport the powers of nature, and prevent their being exhauſted. And to every ſpecies of animals, the author of nature ſeems to have given a faculty, to diſcern and ſelect what is beſt ſuited to their purpoſe.

How long may an animal exiſt in a torpid, or in an inſenſible ſtate? Many of them, we know from obſervation, do annually live one half the year in this ſtate. We have well atteſted accounts of a man living many days in a ſtate of ſleep or torpor;* of flies, immerſed and corked up in a bottle of Madeira wine in Virginia, and many months after coming to life, when the wine was opened in London;† of a toad that lived eighty or a hundred years in the heart of an old oak at Nantz ‡ And if all the powers of animal life may be ſuſpended in ſuch animals for ſo long a period, what ſhould prevent their continuance in ſuch a ſtate for a much longer period of time; for hundreds, or thouſands, or any given number of years? Or who would pretend to aſſign any *data*, to determine the *maximum*, to which ſuch a ſtate might extend? If all circumſtances ſhould remain the ſame, as they were when the animal firſt went into the torpid ſtate, it does not appear that the powers of life muſt neceſſarily waſte away

* Philoſophical Tranſactions.
† Franklin.
‡ Memoirs of the Academy of Sciences for 1719.

for want of food, or of force long to support and preserve them. And if they were preserved whenever the animals by any means brought into a heat or in which the lethargy or torpor would naturally go off, what should prevent its return to the general state of animal life and vigor?

In what manner was it possible that the frogs should ever have entered, or been placed in such a situation? The ground round Mr. Catlin's house in which the well was dug, was of a loose, compact, gravelly soil, intermixed with some small stones, but without any appearance of pores, vacuities, or currents of water, and is the highest land in the vicinity. The spot of land in which the second well was dug, was of a loose gravelly soil, with large intermixtures of clay; and on a small eminence or hill. There was not any thing in the situation or appearance of either, from which any probability or conjecture could arise, that either of those places were ever covered or overflowed by the waters of Lake Champlain or from any of the adjacent rivers. Both these places however had within six or seven years, been covered with heavy timber; and which probably had never been touched by the hand of man, till it was cut down a few years ago, to make way for the settlement of Burlington. In their original and natural state, our woods are damp, moist and miry. The trees are alternately growing up, decaying, or being falling down; and new ones arising up, from the decays, and in the places of others. In this process nothing is more common than for holes and vacuities to appear, in the bodies and in the roots, of the old and decaying trees; these vacuities and fissures are of different figures and dimensions, and every where to be found in the most covered lands. And such a kind of process has probably been going on in the woods of Vermont, from their first production to what now. In the successive changes that nature in this retired state may have passed through, there does not seem to be any thing unnatural or improbable, in there having been times, places, and circumstances, in which frogs might have been conveyed in their eggs, or after they had grown have found a passage several feet below the surface of the earth; and thus made their way into fissures, in which the powers of life might be preserved, but from which they could not find any passage or way to escape.

This conjectural method of reasoning, may I believe serve to account for the physical possibility of facts, which we must suppose have taken place; but it is far from being certain that they do in fact explain the actual process of nature, in the preservation of such animals. And I am in much doubt whether the observations on the torpid state of animals, will apply to the case of the frogs. It did not appear to me that any of these frogs were in a torpid state, when they were dug up; the phenomena rather denoted that they were in the full powers of animation, activity, and health; and that nothing was wanting for their exertion but freedom from their confined and unnatural situation. Upon disturbing one of them, no one of the appearances denoted that it had lived without some kind of food or nourishment; but that it had in fact derived support from the earth, which formed the vegetable matter that was spread through the interstices; and in this way, received regular supplies of food and support. In such a situation, it is probable, it might have remained as long as the earth continued to afford the moisture and element necessary for its support; but when these should have been carried off by evaporation, drought, or being exposed to the internal winds, the life of the animal could not have been preserved.

Instead then of pretending to give a full and adequate explanation of these mysteries of nature, I have only hinted what occurred to my mind upon the subject. When there shall be more information derived from facts and observation, it is not improbable that the improvers of natural history will be able to give a more satisfactory account and explanation of these extraordinary, but well attested phenomena.

No. IV.

Observations on the faſcinating power of Serpents. CHAPTER VI, P. 156.

WHEN the remarks reſpecting the faſcinating power of Serpents, inſerted page 155, 6 was written, I had not met with any American obſervations which appeared to me to be ſufficiently accurate to aſcertain the fact, or to juſtify any deciſion on the ſubject. I have ſince been favored with obſervations which appear to be marked with preciſion and accuracy, and may afford further information in this myſterious part of natural hiſtory.

This ſubject was mentioned by Dr. Cotton Mather, ſo early as the year 1712. In a communication which he made to the Royal Society of London, he treats of the Rattle Snake of America, and relates a ſtory, as he ſays, conſtantly affirmed by the Indians, viz. "that theſe Snakes frequently lie coiled at the bottom of a large tree, with their eyes fixed on ſome ſquirrel above in the tree, which though ſeeming by his cries, and leaping about to be in a fright, yet at laſt runs down the tree into the jaws of this devourer."*

The Hon. Paul Dudley of Roxbury, Maſſachuſetts, Fellow of the Royal Society of London, and Chief Juſtice of the Supreme Court in Maſſachuſetts, about the year 1721, wrote thus to the Royal Society †: that he "would not pretend to anſwer for the truth of every ſtory he had heard of their charming or power of faſcination; yet he was abundantly ſatisfied from ſeveral witneſſes, both Engliſh and Indian, that a rattle ſnake will charm both ſquirrels and birds from a tree into his mouth. Mr. Dudley was told by one of undoubted probity, that as he was in the woods he obſerved a ſquirrel in great diſtreſs dancing from one bough to another, and making a lamentable noiſe, till at laſt he came down the tree and ran behind a log; the perſon going to ſee what was become of him, ſpied a large ſnake that had ſwallowed him.

"Mr. Dudley is the rather confirmed in this relation, becauſe his own brother, being in the woods, opened one of theſe ſnakes and found two ſtriped ſquirrels in his belly, and both of them head foremoſt. When they charm, they make a hoarſe noiſe with their mouths, and a ſoft rattle with their tails, having the eye at the ſame time fixed on the prey."

Beverly, in his Hiſtory of Virginia, edit. 2. p. 260. Lond. 1722, 8vo. obſerves, that "all ſorts of ſnakes will charm both birds and ſquirrels, and the Indians pretend to charm them. Several perſons have ſeen ſquirrels run down a tree directly into a ſnake's mouth: They have likewiſe ſeen birds flattering up and down, and chattering at theſe ſnakes, till at laſt they have dropped down before them."

In the year 1748, M. Kalm, profeſſor of œconomy in the Univerſity of Abo, in Sweden, was ſent into North America, for the particular purpoſe of making obſervations on the Natural Hiſtory of the country. During his ſtay in New York, he paid particular attention to this ſubject, of which he gives the following account:—"Moſt of the people in this country aſcribed to this ſnake a power of faſcinating birds and ſquirrels, as I have deſcribed in ſeveral parts of my journal. When the ſnake lies under a tree, and has fixed his eyes on a bird or ſquirrel above, it obliges them to come down and to go directly into his mouth. I cannot account for this, for I never ſaw it done. However, I have a liſt of more than twenty perſons, among which are ſome of the moſt creditable people, who have all unanimouſly, though living far diſtant from each other, aſſerted the ſame thing.

* Phil. Trans. No. 339. † Phil. Trans. No. 376. p. 292.

They aſſured me, upon their honor, that they have ſeen, at ſeveral times, theſe black ſnakes faſcinating ſquirrels and birds which ſat on the tops of trees, the ſnake lying at the foot of the tree, with its eyes fixed upon the bird or ſquirrel which ſits above it, and utters a doleful note; from which it is eaſy to conclude with certainty that it is about to be faſcinated, though you cannot ſee it. The bird, or ſquirrel, runs up and down along the tree continuing its plaintive ſong, and always comes nearer the ſnake, whoſe eyes are unalterably fixed upon it. It ſhould ſeem as if theſe poor creatures endeavored to eſcape the ſnake, by hopping or running up the tree; but there appears to be a power which with-holds them; they are forced downwards, and each time that they turn back they approach the nearer their enemy, till they are at laſt forced to leap into its mouth, which ſtands wide open for that purpoſe. Numbers of ſquirrels and birds are continually running and hopping fearleſs in the woods on the ground, where the ſnakes lie in wait for them, and can eaſily give theſe poor creatures a mortal bite. Therefore it ſeems that this faſcination might be thus interpreted, that the creature has firſt got a mortal wound from the ſnake, which is ſure of its bite, and lies quiet, being aſſured that the wounded creature has been poiſoned with the bite, or at leaſt feels pain from the violence of the bite, and that it will at laſt be obliged to come down into its mouth. The plaintive note is perhaps occaſioned by the acuteneſs of the pain which the wound gives the creature: But to this it may be objected, that the bite of the black ſnake is not poiſonous. It may further be objected, that if the ſnake could come near enough to a bird or ſquirrel to give it a mortal bite, it might as eaſily keep hold of it, or, as it ſometimes does with poultry, twiſt round and ſtrangle or ſtifle it. But the chief objection which lies againſt this interpretation is the following account, which I received from the moſt creditable people, who have aſſured me of it. The ſquirrel being upon the point of running into the ſnake's mouth, the ſpectators have not been able to let it come to that pitch, but killed the ſnake; and as ſoon as it had got a mortal blow, the ſquirrel or bird deſtined for deſtruction flew away, and left off their mournful note, as if they had broke looſe from a net. Some ſay, that if they only touched the ſnake, ſo as to draw off its attention from the ſquirrel, it went off quickly, not ſtopping till it had got to a great diſtance. Why do the ſquirrels or birds go away ſo ſuddenly, and why no ſooner? If they had been poiſoned or bitten by the ſnake before, ſo as not to be able to get from the tree, and to be forced to approach the ſnake always more and more, they could not, however, get new ſtrength by the ſnake being killed or diverted; therefore it ſeems that they are only *inchanted*, whilſt the ſnake has its eyes fixed on them. However, this looks odd and unaccountable, though many of the worthieſt and moſt reputable people have related it, and though it is ſo univerſally believed here, that to doubt it would be to expoſe one's ſelf to general laughter."

Theſe obſervations clearly ſhow what has been the general ſentiments of the people upon this ſubject, from the earlieſt ſettlement of the country. The opinion formed by the original inhabitants could not be derived from books, ſpeculations, or philoſophical theories; but muſt have been formed from what they had themſelves obſerved and ſeen. Thoſe of our anceſtors who frequently met with theſe ſerpents in the woods, found the Indian accounts to be true, and embraced the ſame opinion, and it ſeems to have been admitted by both, as a well known matter of fact.

The accounts however which they have given us of this matter, do not amount to the higheſt evidence the ſubject may admit. They clearly ſhow what has been the general ſentiment in the country reſpecting the fact, but they do not contain the obſervations and declarations of perſons, who have themſelves been the obſervers or actors in any of theſe extraordinary tranſactions. The following communications will be found more circumſtantial and particular.

Arlington, Feb. 1795.

IN your Natural Hiſtory of Vermont, you have mentioned ſomething concerning the rattle and black ſnakes charming birds, which does not reduce the matter to abſolute certainty. If you think the following account on the ſubject any way intereſting, it is at your ſervice.

TIMOTHY TODD.

WHEN I was a lad, in ranging the fields for birds eggs, I heard a thruſh making her uſual noiſe of diſtreſs, and ſuppoſed ſome boy was taking its neſt or young: Approaching towards her noiſe, I diſcovered her circling the air not many feet from the ground, ſhewing every ſign of diſtreſs. Having viewed her ſome minutes, being unable to account for the phenomena, I at length diſcovered the largeſt black ſnake which I had ever ſeen, lying ſtretched out under the centre of the bird's motion: Being ſtruck with horror at the ſight, I ran off, and believe the ſnake did not ſee me. My father, hearing the circumſtance on my return home, told me the ſnake was charming the bird.—Some years afterward, when nearly arrived to the age of manhood, walking in a field in Connecticut, near a ſmall grove of walnut trees, I ſaw a ſparrow circling the air juſt in the margin of the wood, and making dreadful moans of diſtreſs. Immediately the former circumſtance occurred, and I approached with caution within twenty feet of a black ſnake, about ſeven feet long, having a white throat, and of the kind which the people there call runners, or choking ſnakes.* The ſnake lay ſtretched out in a ſtill poſture; I viewed him and the bird near half an hour. The bird in every turn in its flight deſcended nearer the object of its terror, until it approached the mouth of the ſerpent. The ſnake, by a quick motion of its head, ſeized the bird by the feathers, and plucked out ſeveral. The bird flew off a few feet, but quickly returned. The ſnake continued to pluck the feathers at every flight of the bird, until it could no looger fly: The bird would then hop up to the ſnake and from him, until it had not a feather left, except his wings and on its head. The ſnake now killed it by breaking its neck, by an amazing ſudden motion; he did not devour it, but caſt it a little off, and continued his ſtation. Now the tragedy was again to be repeated; for another bird of the ſame kind, who had ſhewn ſigns of diſtreſs during the firſt tragedy, was faſcinated to the jaws of the monſter in the ſame circling manner as the former, and ſuffered the loſs of ſome feathers. I could no longer ſtand neuter. With indignation I attacked the hated reptile, but he eſcaped me. The living bird was liberated from his fangs. The dead one I picked up and ſhewed to my friends, deſtitute of feathers as before mentioned.

Brandon, July 1, 1795.

DEAR SIR,

I find you ſolicitous of information reſpecting the charm of the ſnake or ſerpent—perhaps the following account, which I received from the mouth of a lady, who was herſelf an unhappy ſufferer, may not be amiſs or unacceptable.

* It is ſaid that this kind of ſnake will entwine himſelf round the body or neck of a perſon, and choke him: It may be a vulgar error: This, however, is certain, they will often purſue a perſon who runs from them. I have heard that they frequently charmed ſquirrels and ſome other animals, and in ſome inſtances the human ſpecies: An inſtance or two which happened to boys, will perhaps before long be preſented, with the proper vouchers.

If I have not forgotten, her name was Finney, of Lanſingburgh—ſhe told me about five years ago, that not long before that time, as ſhe was walking by the corner of a certain fence, not far from North River, ſhe was ſuddenly amuſed with the chirping of a ſnake, whether a black or ſtriped one, I have forgotten. As ſhe drew nigher to the fence, ſhe diſcovered the ſnake, pitching its head to and fro, through a heap of dead bruſh; deeply engaged with its charms, ſhe forgot herſelf, till a neighbor paſſing by, broke her attention: When ſhe felt herſelf as though ſhe had been among poiſonous herbs, itching, &c. which iſſued in a long fit of ſickneſs, which her phyſician aſcribed to the faſcination of the ſnake, and ſhe had not perfectly recovered when I ſaw her.

I am, &c. I. WATKINS.

Extract of a letter from Samuel Beach, dated Whiting, July 24, 1795.

WHEN a lad, I lived with my father in the then province of New Jerſey, where the black ſnake, with a white throat, commonly called the racer, as well as the rattle ſnake, and other ſerpents, are frequently met with; and I never remember to have heard any one diſpute the power of charming belonging to ſeveral ſpecies of ſerpents, but more common to the black ſnake, called the racer, which I have twice ſeen in the operation.

The following ſtory, I have often heard related, and to which people in general gave credit, of a ſnake's faſcinating a young lad:——Two boys were ſent into the woods to look for cattle, and coming to a piece of open land, where ſome colliers had been a ſhort time before burning coal, they ſtopped to liſten for the bells that were on the cattle they were in ſearch of; and near where they ſtood, they obſerved a very large ſnake, of the racer kind: One of the boys obſerved to the other, that if he would watch the motion of the ſnake, he himſelf was determined to ſee if it would faſcinate or charm him; and ſaid, 'you have a ſtick in your hand, and if you ſee me like to be too much injured by the ſnake, you may kill him, and relieve me.' This the other agreed to do; when the firſt advanced a few ſteps nearer the ſnake and made a ſtand, looking ſteadily on him; when the ſnake obſerved him in that ſituation, he raiſed his head with a quick motion, and the lad ſays, that at that inſtant there appeared ſomething to flaſh in his eyes, which he could compare to nothing more ſimilar, than the rays of light thrown from a glaſs or mirror when turned in the ſun ſhine; he ſaid it dazzled his eyes, at the ſame time the colours appeared very beautiful, and were in large rings, circles, or rolls, and it ſeemed to be dark to him every where elſe, and his head began to be dizzy, much like being over ſwift running water. He then ſays, he thought he would go from the ſnake; and as it was dark every where but in the circle, he was fearful of treading any where elſe; and as they ſtill grew in leſs circumference, he could ſtill ſee where to ſtep; but as the dizzineſs in his head ſtill increaſed, and he tried to call to his comrade for help, but could not ſpeak, it then appeared to him as though he was in a vortex or whirlpool, and that every turn brought him nearer the centre.

His comrade, who had impatiently waited, obſerving him move obliquely forwards to the right and left, and at every turn approaching nearer the ſnake, and making a ſtrange groaning noiſe, not unlike a perſon in a fit of the night mare, he ſaid he could ſtand ſtill no longer, but immediately ran and killed the ſnake, which was of the largeſt ſize.

The lad that had been charmed was much terrified, and in a tremor; his ſhirt was in a few minutes wet with ſweat; he complained much of a dizzineſs in his head, attended with pain, and appeared to be in a melancholy, ſtupid ſituation for ſome days after.

I have heard the ſtory ſo often related by different perſons, that I cannot but give credit to it.

Sir,

I HAVE obſerved that you are deſirous of collecting information relative to the faſcinating power of ſerpents—If you think the following inſtance worthy a place in your uſeful collection, you are at liberty to inſert it.

When I was a boy about 13 years of age, my father ſent me into a field to mow ſome briars. I had not been long employed, till I diſcovered a large rattle ſnake, and looked round for ſomething to kill him; but not readily diſcovering a weapon, my curioſity led me to view him. He lay coiled up, with his tail erect, and making the uſual ſinging noiſe with his rattles. I had viewed him but a ſhort time, when the moſt vivid and lively colours that imagination can paint, and far beyond the powers of the pencil to imitate, among which yellow was the moſt predominant, and the whole drawn into a bewitching variety of gay and pleaſing forms, were preſented to my eyes; at the ſame time, my ears were enchanted with the moſt rapturous ſtrains of muſic, wild, lively, complicated and harmonious, in the higheſt degree melodious, captivating and enchanting, far beyond any thing I ever heard before or ſince, and indeed far exceeding what my imagination in any other ſituation could have conceived. I felt myſelf irreſiſtibly drawn toward the hated reptile; and as I had been often uſed to ſeeing and killing rattle ſnakes, and my ſenſes were ſo abſorbed by the gay viſion and rapturous muſic, I was not for ſome time apprehenſive of much danger; but ſuddenly recollecting what I had heard the Indians relate (but what I had never before believed) of the faſcinating power of theſe ſerpents, I turned with horror from the dangerous ſcene; but it was not without the moſt violent efforts that I was able to extricate myſelf. All the exertions I could make, with my whole ſtrength, were hardly ſufficient to carry me from the ſcene of horrid, yet pleaſing enchantment; and while I forcibly dragged off my body, my head ſeemed to be irreſiſtibly drawn to the enchanter, by an inviſible power. And I fully believe, that in a few moments longer it would have been wholly out of my power to make an exertion ſufficient to get away.

The latter part of the ſcene I was extremely frightened, and ran as faſt as poſſible towards home, my fright increaſing with my ſpeed. The firſt perſon I ſaw was my uncle, who diſcovering my fright, ran to meet me, and aſked the occaſion of it: I told him I had been frightened by a rattle ſnake; but was in too great a perturbation to relate the whole. He rallied me for my puſillanimity, and took me by the hand, and we went to the place where the ſnake was ſtill lying, which was ſoon diſpatched by my uncle. I then related the ſtory to him, and have ſince told it to many other perſons.

The night following I never cloſed my eyes: The ſame ſcene continually haunted my imagination. Whether the agitation was occaſioned merely by the recollection of what had paſſed, or whether the operation of the charm ſtill had ſome real effect upon the nervous ſyſtem, I cannot determine.

ELIAS WILLARD.

Tinmouth, Oct. 27, 1795.

UPON a careful examination of the above accounts, I cannot see that any observations are to be expected upon this subject, more accurate or particular; or which could probably be attended with more convincing attestations or evidence of their being authentic and correct. Dr. Todd, is a physician of much ability and distinction, formerly president of the medical society, and one of the Council of this State, and now resident in Connecticut. Mr. I. Watkins was a minister of the gospel at Brandon, and now lives in the state of New York. Mr. Beach has been attentive to the natural productions of the country, and now lives at Whiting. Mr. Willard died at Tinmouth a few years ago, and was a man of much information, virtue, and veracity. And I cannot discern any article or circumstance in their relations of these matters, which appears to be of a doubtful, deceptive, or fallacious nature. They relate simply and merely to matters of fact, and are declarations of what they heard, observed and felt; matters of which they certainly were adequate and competent observers and judges.

Among a number of accounts of a similar nature, I shall only mention one more, which I have from Col. James Claghorn, of Rutland, which is inserted not so much with a view to establish the fact, but rather as affording some information respecting the manner and process of the operation. At Salisbury in Connecticut, some years ago, where the Colonel then lived, there were two men of the name of Baker and Nichols. Going towards the meeting house in that place, they discovered a large rattlesnake, in a plain open piece of land. The snake lay coiled up in a posture of defence; to attack him with safety, they procured a long slender pole or switch, with which they could reach him without being in any danger from his motions. As the snake could not escape, they diverted themselves with irritating him with their pole, without giving him any considerable wound. They had carried on this business some time, during which the snake had repeatedly attempted to spring upon them from his coils, and to escape by running; and discovered uncommon appearances of rage and disappointment. Being prevented in all his attempts to escape from, or to bite his oppofers, he suddenly stretched himself at his full length, and fixed his eyes on the man who was tickling him with the end of his pole. The snake lay perfectly still, and Mr. Nichols kept on the same motions with his switch. When this scene had continued for a short time, Mr. Nichols seemed to incline his body more and more towards the snake, and began to move towards him in a very slow and irregular manner. Baker, who stood looking on, noticed these appearances, and called to Nichols to desist from the business, and dispatch the snake. He took no notice of these admonitions, but appeared to have his whole attention fixed on the snake, was observed to be gradually moving towards him, to have a pale aspect, and to be in a profuse sweat. Alarmed with the prospect, Baker took him by the shoulders, gave him a violent shake, pulled him away by force, and enquired what was the matter. Nichols, thus forced from the scene, made an uncommon mournful noise of distress, appeared to be uncommonly and universally affected, and in a few minutes replied to the enquiries that he did not know what ailed him, that he could not tell how he felt, that he had never felt so before, that he did not know what was the matter with him, but was very unwell.

The above accounts relate only to the fascinating power of two of the serpents of America. Singular and extraordinary as they may appear, we have very authentic relations that the same power is found in some of the serpents of the other hemisphere.

One very remarkable account of this kind is from Italy by Dr. Sprengell.* At Milan he found a viper catcher, who ſeldom was without ſixty or more vipers alive, kept together in a back room, open at top; he had them from all parts of Italy, and ſold them dead or alive according to the uſes they were deſigned for. Having one day got a female viper, big with young, we catched ſome mice, and threw in one at a time; amongſt all that number of vipers, which were upwards of ſixty, there was none of them in the leaſt concerned himſelf about the mouſe, till the pregnant female viper and the mouſe interchanged eyes; whereupon the mouſe ſtartled; but the viper raiſed her head, and turned her neck into a perfect bow, the mouth open, the tongue playing, the eyes all on fire, and the tail erect: The mouſe ſeemed ſoon recovered of his fright, would take a turn or two, and ſometimes more, pretty briſkly round the viper, and giving at times a ſqueak, would run with a great deal of ſwiftneſs into the chops of the viper, where it gradually ſunk down the gullet. All this while the viper never ſtirred out of her place, but lay in a ring."

It is to be obſerved, that no viper will feed when confined, except a pregnant female viper. The Doctor ſaw the ſame thing at Bruſſels, where a ſoldier had catched a large viper big with young.

[From the Travels of Le Valliant in Africa.]

IN the additional volumes of the travels of Le Valliant into Africa, appear ſome very ſtriking facts relative to the faſcinating power of ſerpents. Two of them are authenticated on the evidence of the author himſelf, and the other is ſanctioned by his belief in the veracity of the relator.

The inſtances produced by Le Valliant are briefly as follow:

Firſt inſtance.—"One day, in one of our excurſions in hunting, we perceived a motion in the branches of one of the trees. Immediately we heard the piercing cries of a ſhrike, and ſaw it tremble as if in convulſions. We firſt conceived that it was held in the gripe of ſome bird of prey; but a cloſer attention led us to diſcover upon the next branch of the tree, a large ſerpent, that with ſtretched out neck, and fiery eyes, though perfectly ſtill, was gazing at the poor animal. The agony of the bird was terrible; but fear had deprived it of ſtrength, and, as if tied by the leg, it ſeemed to have loſt the power of flight. One of the company ran for a fuſee; but before he returned, the ſhrike was dead, and we only ſhot the ſerpent. I requeſted that the diſtance between the place where the bird had experienced the convulſions, and that occupied by the ſerpent might be meaſured. Upon doing ſo, we found it to be three feet and a half, and we were all convinced that the ſhrike had died neither from the bite, nor the poiſon of its enemy. I ſtripped it alſo before the whole company, and made them obſerve, that it was untouched, and had not received the ſlighteſt wound."

Second inſtance.—"Hunting one day, in a marſhy piece of ground, I heard, all at once, in a tuft of reeds, a piercing and very lamentable cry. Anxious to know what it was, I ſtole ſoftly to the place, where I perceived a ſmall mouſe, like the ſhrike on the tree, in agonizing convulſions, and two yards farther a ſerpent, whoſe eyes were intently fixed upon it. The moment the reptile ſaw me, it glided away; but the buſineſs was done. Upon taking up the mouſe, it expired in my hand, without its being poſſible for me to diſcover, by the moſt attentive examination, what had occaſioned its death."

* Phil. Tranſ. No. 397.

Third inſtance.—"The Hottentots, whom I conſulted upon this incident, expreſſed no ſort of aſtoniſhment. Nothing, they ſaid, was more common; the ſerpent had the faculty of attracting and faſcinating ſuch animals as it wiſhed to devour. I had then no faith in ſuch power; but ſome time after, ſpeaking of the circumſtance in a company of more than twenty perſons, in the number of whom was Colonel Gordon; a captain of his regiment confirmed the account of the Hottentots, and aſſured me it was an event which happened very frequently. 'My teſtimony,' added he, 'ought to have the more weight, as I had once nearly become myſelf a victim to this faſcination. While in garriſon at Ceylon, and amuſing myſelf, like you, in hunting in a marſh, I was, in the courſe of my ſport, ſuddenly ſeized with a convulſive and involuntary trembling, different from any thing I had ever experienced, and at the ſame time was ſtrongly attracted, and in ſpite of myſelf, to a particular ſpot of the marſh. Directing my eyes to the ſpot, I beheld, with feelings of horror, a ſerpent of an enormous ſize, whoſe look inſtantly pierced me. Having, however, not yet loſt all power of motion, I embraced the opportunity before it was too late, and ſaluted the reptile with the contents of my fuſee. The report was a taliſman that broke the charm. All at once, as if by miracle, my convulſion ceaſed; I felt myſelf able to fly; and the only inconvenience of this extraordinary adventure was a cold ſweat, which was doubtleſs the effect of my fear, and of the violent agitation my ſenſes had undergone."

"Such was the account given me by this officer. I do not pretend to vouch for its truth; but the ſtory of the mouſe, as well as of the ſhrike, I aver to be a fact."

The ſame phenomena then have been obſerved in Europe, Aſia, and Africa, as well as in America. If then we form our judgment from obſervation, the concluſion will be, that in every part of the earth, the ſerpent has diſplayed different powers and faculties, from what have appeared in other animals.

Remarks and Conjectures on the above Accounts.

1. From the above accounts it can hardly be doubted, but that the viper, the black, and the rattle ſnake, have a power to affect birds, ſquirrels, and the human race, in an extraordinary and powerful manner; ſo as to cauſe them to approach within the reach of their devouring jaws. To philoſophers, who derive all their information from their books, and to men who determine from theory and ſyſtem, the whole affair paſſes for vulgar deluſion and folly: Nor will it ever appear probable to any perſon who is accuſtomed to no other way of reaſoning, than the metaphyſical method of determining facts by reaſonings *a priori*, that nature has given to the ſerpent very different powers from thoſe which ſhe has imparted to any other ſpecies of animals. But it certainly is not from the men of metaphyſical theory and ſyſtem, but from the careful obſervers of nature, that the moſt important information is to be expected. And it will be difficult to find any defect in the obſervations that have been mentioned, or any circumſtance that denotes them to have been deluſive or fallacious. I muſt therefore admit it as a well atteſted fact, that nature has imparted to the ſerpents mentioned above the ſingular and extraordinary power of facination; or affecting other animals in ſuch a manner as to cauſe them to approach within their reach.

2. This power, whatever it be, ſeems to be exerted by means of the eye of the ſnake. "The eye of this reptile, ſays Mr. Dudley, (the rattleſnake) has ſomething ſo ſingular and terrible, that there is no looking ſtedfaſtly upon him."* All the accounts agree that no uncommon effect is perceived, till the eye of the animal is fixed on that of the ſerpent. It ſhould ſeem from Mr. Beach's and Mr. Willard's accounts, that the eye of the ſpectator is no ſooner fixed on that of the ſnake, than the moſt lively and beautiful colours are ſeen, in the moſt engaging and enchanting forms, in large rings, circles, or rolls: and that theſe circular appearances of the moſt beautiful light and colours are gradually diminiſhing in their circumferences—Hence the encircled animal is conſtantly taking irregular or circular motions, within the circle of apparent light; both of which become more and more contracted, till they are brought to a centre or cloſe at the head of the ſnake.

3. The operation whatever it may be, takes away the ſenſes, or ſtupifies the animal, on which the operation is carried on. This was the caſe, and to a high degree, with all the perſons mentioned in the above accounts. They found themſelves violently affected, but new not what was the matter. At the beginning of the ſcene they ſeemed apprehenſive of danger, but ſoon loſt all power, and all inclination to make any oppoſition; Nor was there, in a few moments, enough left of the rational or animal powers, to reflect on their ſituation, diſcern their danger, contrive a method or make any attempt to eſcape. Deprived of ſenſe and reaſon they remained ſubject to a power which they could not comprehend or oppoſe, and yet in great and extreme diſtreſs.

4. Can there be any ſubtle effluvia, poiſonous exhalation, or ſtupifying virus, emitted by the eye of the ſerpent, and received by that of the enchanted animal, equal to, and producing the uncommon effects which have been mentioned. This ſeems contrary to all the other appearances of animal nature; and yet the phenomena ſeem to indicate ſuch a phyſical kind of operation. The body of the boy at New-Jerſey was covered with a violent ſweat. His head was affected with a dizzineſs, and pain: nor did he recover his health for ſeveral days. Mr. Willard eſcaped before the ſcene was completed and found himſelf too much affected to ſleep the next night; but could not determine whether it was owing to the fright, or to a phyſical effect on the nervous ſyſtem. In the lady at Lanſingburgh, the faſcination iſſued in a long fit of ſickneſs, which was not cured in five years. Theſe are phenomena which ſeem not only to denote phyſical operations, but ſuch as were of a very powerful and extraordinary nature; and which ſeem to reſemble what was ſaid of the baſaliſk by the ancients.

5. Whether there is any thing in the powers of other animals that reſembles this faculty in the ſerpent, I am not enough acquainted with natural hiſtory to determine. Some perſons have mentioned the *Dog* and the *Cat*, as exhibiting ſome appearances of a ſimilar power; but I do not find any ſufficient evidence in proof of it. Nor do I know of any thing in nature that approximates to a ſimilarity, except the reſemblance in the effect which *light* appears to have on ſome animals.

Some inſects will fly into a burning candle, and remain in the flame till their wings are conſumed, and their bodies burned. The effect of light is alſo apparent in ſome of the birds. In a barn in which the ſwallows reſide in the ſummer, if a burning candle be carried in the night, the ſwallows will ſoon leave their places of reſt, and gather round the light. The

* Phil. Tranſ. No. 376, p. 292.

fiſhermen in almoſt every country, frequently avail themſelves of the ſame diſpoſition in ſome ſpecies of fiſh; and expect to allure them to their boats or weapons by the light of a lanthorn or ſmall fire. The ſportſmen in ſome countries, effect their purpoſes by the reflection of light. "There is a method among ſportſmen of taking larks by a net and looking glaſſes, which they expreſs by the name of *Doring*. Five or ſix looking glaſſes are ſo fixed to a ſtick, as to reflect the light upwards. The ſtick in which they are fixed is ſo made as to revolve on its axis by means of a ſtring wound round it. When the machine is thus twirled round, the light is reflected upwards by the mirrors in quick and conſtant ſucceſſion, and to a conſiderable extent. The bird is ſaid to be enticed or invited by the glimmering of the light, till it deſcends and lights near the looking glaſſes, and is then taken by the net."† "The lark catchers in ſome countries," ſays Brydone, "are ſo dexterous at this maneuver, that with a ſmall mirror they throw the rays of light on the lark, let her be ever ſo high in the air; which by a kind of ſacination, brings down the poor animal to the ſnare."‡

Such an effect does not ſeem to be altogether diſſimilar to what takes place in the ſacination of a bird by a ſerpent. The lad at New-Jerſey ſaid that "at the inſtant the ſnake fixed his eye upon him there appeared ſomething to flaſh in his eyes, which he could compare to nothing more ſimilar, than the rays of light thrown from a glaſs or mirror when turned in the ſun ſhine; he ſaid it dazzled his eyes &c." Nor do the eyes of the ſerpent ſeem to be unfitted to produce ſome ſuch effect. There is ſomething in the eyes of a large rattle ſnake that is ſo fierce, ardent, and penetrating, that it is painful to look upon them; and we do in fact experience phyſical effects, which to ſay the leaſt, are agitating and very uncomfortable.

6. Whence aroſe the idea of any uncommon ſubtilty or cunning in the ſerpent? There does not ſeem to be any thing in the whole race, which has proved agreeable, uſeful, or beneficial to mankind. The higheſt degree of malice and danger were expreſſed by the ancients, by the phraſe of a ſerpent that would not be charmed; that is phyſically diveſted of his diſpoſition to bite.* And yet it has happened that this ſpecies of animals in almoſt every country, has been conſidered as the emblem of ſomething wiſe or excellent.

Strabo and Euſebius tell us that at Elephantina, the god that was ſuppoſed to repreſent the architect of the univerſe was adored under the figure of a ſerpent. In his hiſtory of the creation, Moſes repreſents the ſerpent, as more ſubtile than any beaſt of the field, which the Lord God had made. The Jewiſh and the Chriſtian theology both ſuppoſe that the form of the ſerpent was that which the tempter choſe, to give the greateſt probability, influence, and ſucceſs to his deſigns and attempts upon the human race. The Saviour of mankind in his day, gave it as a command to his diſciples, to be wiſe as ſerpents, but harmleſs as doves. The Egyptians twined two ſerpents together round the globe, probably to repreſent the equilibrium of the ſyſtem of the world. In India, the prieſts put the ſerpent into the hands of their divinities. By a circle made by a ſerpent with his tail in his mouth, the ancients meant to repreſent eternity; by being coild round a ſtick, he was ſuppoſed to exhibit the god of health; and we have made him the repreſentative of juſtice and prudence. The Jews, the Greeks and the Muſſulmen, have all viewed this reptile in a

† Supplement to Chambers's Dictionary. Article DORING.
‡ Brydone's tour through Sicily and Malta. Boſton Edit. p. 155.
* Pſalm 58. 3, 4, 5. Jeremiah 8. 17. Eccleſiaſtes 10. 11.

ſingular light; and he has every where been uſed to denote ſomething valuable and uſeful.

Whence aroſe all this celebrity, and theſe ideas of his wiſdom or cunning? And how came ſo many different nations to affix the ideas of wiſdom, power, and utility, to a race of animals that do not appear to be either friendly, or of any advantage to mankind? I cannot aſcertain either the origin, or the cauſe of the reputation that has been aſſigned to a reptile, which appears to be the moſt uſeleſs, odious and obnoxious, of the whole animal race; nor can I determine whether the ancients were acquainted with his ſingular powers. They have been obſerved in Europe, Aſia, Africa, and America; but I do not find any thing in the earlieſt writings, thoſe of Moſes or Homer, that intimate any ſuch ſuſpicion. Homer ſpeaks of enchantment, as ſomething that was well known and generally believed in his day. But it was not the eye, or a ſerpent that was inveſted with this dreadful power; it was the voice and the ſongs of the Syrens, that carried unavoidable enchantment and deſtruction. But whatever were the ſentiments of the ancients reſpecting this animal, I think it can hardly be doubted but that he does now diſcover a different faculty or power from thoſe of other animals. It is to be expected that theſe powers ſhould be moſt ſtrong and apparent in thoſe countries, where he exiſts in the greateſt eaſe and vigor; and has been the leaſt diſturbed by cultivation, or by man: and to me the evidence is convincing, that the ſerpent has diſcovered ſuch powers in America. But I am ſo far from comprehending this myſterious article of natural hiſtory, that I muſt refer the ſubject to the inveſtigation of men of better abilities and more information.

THE TWO-HEADED SNAKE.

NATURALISTS have been in doubt whether the two-headed ſnake was a monſtrous production, or a diſtinct ſpecies of ſerpents. The following curious obſervation of Capt. William Baker, ſeems to decide the point. Mr. Baker is well known to the Author, and there is no room to doubt the authenticity, or the accuracy of his account.

In Auguſt 1763, in the town of Sherley, county of Middleſex, and ſtate of Maſſachuſetts, I found a large water ſnake, as I was mowing in a meadow, formerly flowed by beaver. I took out of the belly of the ſnake ſixty young ones; they were about ten inches long, except one of them, which had two heads, four eyes, two tongues, and appeared to be about two inches longer than any of the reſt. I ſhewed the ſnake with two heads, to a great many people; but as I was but a boy, and at that time knew not that I could have preſerved it in ſpirits, I did not attempt keeping it, which I am very ſorry for, as the ſight of him would prove to the world, together with this account, that the two headed ſnake is of a monſtrous production.

W. BAKER.

RUTLAND, DEC. 16, 1795.

No. V.

A Diſſertation on the Colors of Men, particularly on that of the Indians of America. CHAP. VIII. P. 237.

COLORS OF MEN.—ONE of the moſt curious phenomena that belongs to the natural hiſtory of man, is the *color* with which he is marked. Every

object which we behold, appears to be of some particular color. In animals these colors are extremely various, different, and beautiful; and sometimes they appear to be variable. Man, like other animals, is distinguished both by a peculiarity, and by a variety of color. In Europe, he appears white: In Africa, he is black: In America, his color is red: In Asia, a variety of colors are to be found upon the human countenance. There are other shades and tinctures to be found in each quarter of the globe, besides those mentioned above: But those that have been mentioned are the most general and prevalent colors, under which man appears, in the four general divisions of the globe.

Variety of Colors.—The most distinguishing, permanent, and general colors of the human species, and which are at the greatest extremes from each other, are black and white. Between these, or rather as different degrees and variations of them, are all the other colors of the human countenance: And they may be reduced to swarthy, red, copper, and brown. *Black* is the color of the Africans under the equator; of the inhabitants of New Guinea, and New Holland. A *swarthy* color includes the Moors in the northern parts of Africa, and the Hottentots in the southern parts of it. *Red* distinguishes the Indians of North America. The same, or perhaps more accurately a *copper color* denotes the complexion of the Indians of Asia. *Brown* comprehends the Tartars, Persians, Arabs, Africans on the coast of the Mediterranean, and the Chinese. The inhabitants of the islands in the Pacific Ocean, are also chiefly of this color. Under this color is comprehended all those different shades, which are denoted by olive, chesnut, and deep yellow. A less dark color, or *brownish*, will best express the complexion of the inhabitants in the southern parts of Europe; the Sicilians, Abyssinians, Spaniards, Turks, and also the Samoiedes, and Laplanders. *White* is the color of most of the European nations; as Swedes, Russians, Danes, English, Germans, Poles, &c. Kabardinski, and Georgians. It is observable that all these colors are included between the two extremes; or rather they are different degrees or variations of black and white.

Change of Color.—A change of color is always produced by the marriage or mixture of persons of different complexions. Thus the offspring of the European and the negro, is of a yellow complexion; less white than the European, and less black than the negro; or rather of a dark cream color. This race are numerous in some parts of America, and are called *Mulattoes*. The offspring of an European and an Indian is also of a cream color; and more light than the mulatto. These are called among the Spaniards *Mestigos*. The effect and operation of this change of the original colors, in the climate of America, is always in favor of the fairer complexion; and never approaches towards, or ends in the darker color. This change and alteration of color, when it is left to its natural tendency and effect, is extremely slow and moderate in its operation; and it is not until after many years, that the full effect is produced. In the Spanish settlements, this mixed race has so multiplied as to form a considerable part of the inhabitants: And the several stages of variation in this race, with the gradual alteration of shade until it ends in the European complexion, have been well ascertained, and are now perfectly well understood. Those of the first generation are considered and treated as negroes or Indians. In the third generation the Indian color disappears. It is not until the fifth descent that the deeper black of the negro is lost. At the end of these different periods, the offspring can no longer be distinguished from the European; but is considered as such, and entitled to all

their privileges.*—In this change of color, produced by the moſt powerful of all natural cauſes, the mixture of perſons of different complexions; ſo gradual and ſlow is the operation, that the black muſt be ſubject to five diviſions, and the operation muſt be continued through five generations, before the color is completely changed.

Seat of Color.—That the different colors of the human ſpecies are ſeated in the ſkin is very apparent. The ſkin conſiſts of three folds or coverings. The firſt is a very fine and tranſparent integument, and is white in people of all colors. The ſecond is a cellular membrane, differently colored in different perſons. The third is alſo white. It is in the ſecond of theſe, that the color is ſeated. In black people, a very able anatomiſt† obſerves that the ſkin is much thicker and larger, than in white ones; the cellular membrane in the latter being a thin mucus, but in the former a thick membrane. In whites this ſeat of the color is tranſparent, and either totally deprived of veſſels, or only furniſhed with a very few; as the yellow color appearing in jaundice, vaniſhes on the cauſe of the diſeaſe being removed, which is not the caſe with ſtains from gunpowder, or ſimilar cauſes.—Hence, he obſerves, three cauſes may be very readily aſſigned, which will operate to deſtroy the pelucidity of the ſkin, and give it a brown color, and render it thicker. Theſe are the heat of the ſun, the acceſs of air, and naſtineſs. And in general any thing that operates to produce or to deſtroy the pelucidity of the ſkin, will tend to vary and change the color of the human body.

Color connected with Climate.—Among the cauſes which may affect the color of the human body, it has been generally ſuppoſed that the influence of heat or climate, has a conſiderable effect. Concerning this influence or connexion between color and climate, the following obſervations may be made.

1. Different colors are beſt ſuited to different climates. In all the plants and animals which are ſpread over the face of the earth, there is ſomething by which they are peculiarly fitted to the climate and country, in which they are placed. One kind of vegetable requires a great degree of heat: Another flouriſhes the beſt in a temperate and cold country. It is the ſame with animals. Some are fitted for the heat of the torrid zone. Others require the ſevere cold of the frigid zone, to give them their greateſt perfection. To all theſe animals, nature has given the proper clothing; which admits of no other variation than what the ſeaſons of the year require.—Man is an animal made for every climate: Inſtead of being formed for the torrid or frigid zone, he can live, multiply, and arrive to his proper perfection, in any climate: And it is left to his own reaſon and induſtry to provide himſelf with ſuch clothing, as his condition may require, in every climate through which he may paſs; or in which he may ſojourn. And yet there is ſomething in different men, which qualifies and fits them for one climate, better than for another; and that is, color.—The man whoſe color is black, is better ſuited to the extreme heat of the hotteſt climate, than any other of the human race. This has been long known and obſerved in the climates of America. The negroes of the Weſt India iſlands, in the Spaniſh dominions, and in the ſtates of Georgia, and South Carolina, are found to bear the extreme heat of the ſummer, better than the white people. On the contrary, the negroes in the northern ſtates of America are more tender than the white people, leſs

* Voyage de Ulloa, I. 27. Robertſon's Hiſt. Amer. II. 369.
† Doctor Hunter.

able to bear the ſeverity of our winters, and more apt to complain, ſuffer, and freeze with the cold.—The white men are the reverſe of this They bear the ſevere winters of Canada, and Ruſſia, without much difficulty or ſuffering: But in a hot climate they become ſickly, and fail ſooner than the negroes. Several colonies of white people have ſubſiſted in the torrid zone in America, more than two centuries: And yet they cannot bear the heat, like the original inhabitants, or like the negroes. The one is apparently beſt ſuited to a cold, and the other to a hot climate. And theſe differences are as apparently owing to their color, for they do not appear to be connected with any other cauſe, or circumſtance. Different colors therefore in the human ſpecies, are certainly beſt adapted, fitted and ſuited, to different climates.

2. There is a tendency in climate to produce the color which it requires. Animal heat is derived but little from the ſun, or from the atmoſphere; but chiefly and mainly from original conſtitution. The deſign of covering and clothing, is to detain and preſerve the heat of the animal body, in its natural ſituation, degree and quantity; and to prevent an extreme waſte or diſperſion of it. Black readily receives and abſorbs the heat of the animal body; and in this way tends to exhauſt and diſperſe it. White reflects and repels the rays of light and heat more than any other color, and thus prevents and oppoſes their paſſage; and in this way, tends to preſerve and detain the conſtitutional heat of the animal body. Hence the covering, which nature has aſſigned to the earth in cold climates, is ſnow: By its color it becomes beſt of all adapted to prevent the heat from flowing out of the earth into the atmoſphere. And hence the covering of moſt animals in the ſevereſt ſeaſon, and country, is generally white; the color which moſt of all preſerves the heat of the animal body, and prevents its flowing out. In conformity to the ſame law of nature, many animals change their color at the approach of winter; and from black, brown or grey, become white. This is the caſe with the rabbits, foxes, bears, &c. at Hudſon's bay, Ruſſia, and Siberia. From the darker colors which they bear in ſummer, they turn white at the approach of winter; and remain ſo, until the return of ſpring. In ſuch caſes, climate appears to have a powerful and a ſudden operation, to produce the colors it requires.

The change of color in man, is more ſlow and gradual: It is however certain and apparent. The white men who are much expoſed to the heat and rays of the ſun, and to the influence of the wind, in hot ſeaſons loſe their whiteneſs, and become brown or red. The inhabitants of Europe when they ſettle in New Spain or in the Weſt India iſlands, ſoon looſe their whiteneſs, and become of a browniſh yellow. The Europeans who reſide long in the Eaſt Indies, become of the ſame cream colored complexion. We have an accurate account of the effect produced by climate in South America, by Dr. Mitchell: "The Spaniards who have inhabited America under the torrid zone for any conſiderable time, are become as dark colored as our native Indians of Virginia, of which I myſelf have been a witneſs."* An account from Africa, is equally authentic and accurate. "There are ſeveral other ſmall Portugueſe ſettlements, and one of ſome note at Mitomba, a river in Sierra Leone. The people here called Portugueſe, are principally perſons bred from a mixture of the firſt Portugueſe diſcoverers with the natives, and now become, in their complexion, and woolly quality of their hair, perfect negroes, retaining however, a ſmattering of the Portugueſe language."† Here the operation of mix-

* Phil. Tranſ. No. 476.

† Account of the trade of G. Britain to Africa, by an African Merchant

ture by marriage, is determined by climate in favor of the African color. There are ſimilar accounts of the complexion of the Portugueſe, who ſettled at Senegal in 1400; and of thoſe who are ſettled on the coaſt of Congo. The varying complexion of the Jews is alſo very remarkable. Deſcended from one ſtock, their religion has prevented their marrying with other people. In Britain and Germany, they are white. In France and Turkey, they are brown. In Spain and Portugal, their color is ſwarthy. In Syria and Chaldea, the olive color prevails. In Arabia and Egypt, they are of a tawny or copper color.* Among every nation they ſeem to partake of the color of the climate. And one of them, Tudela, relates that his countrymen in Abyſſinia, have acquired the dark complexion of the original natives.

It is obſervable that all theſe changes, are from a light to a more dark complexion. Similar changes have not been obſerved in the negroes, that have been brought into the temperate climates of America. It ſhould ſeem therefore that the tranſition is eaſier from white to black, than from black to white; or that the negro color is the moſt deeply impreſſed of any; or that heat has a much more ſudden and powerful effect than cold. It ought however to be obſerved that it is only in white and fair complexions, that theſe changes of color would ſoon become viſible, or apparent to common obſervation. In a dark or black countenance, ſmall and gradual variations of ſhade would not be obſerved. It would not be until the negro had loſt much of his former color, that the change would be generally noticed. But I much ſuſpect that there is ſomething more curious in this ſubject than has been imagined: That ſome of the colors of the human countenance, are in their own nature, colors which are leſs changeable than others. It ſeems to be univerſally the caſe, that the black produced by ſcorching, or by an intenſe heat, is the moſt durable of any color whatever: And that white is more ſoon and eaſily ſullied, and changed, than any of the other colors, with which any object is marked.

3 It ſeems to be a confirmation of theſe remarks, that the colors of men in different climates, are in fact ſuch, as thoſe climates ſeem to require. Under the equator the darkeſt ſhade, perfect black takes place. The negro of Africa is placed in the moſt intenſe heat, that takes place on this globe; and the color of the negro is the deepeſt and darkeſt black, that any where appears on the human countenance. Advancing from the equator towards the pole, the color of the human ſpecies acquires a complexion more and more light; until having paſſed through all the intermediate gradations of ſhade, it terminates in the whiteneſs of a temperate and cold climate. There are indeed variations and exceptions from this, and from every other general law of nature. Intermixtures of different nations, migration, differences in food, diſeaſe, cleanlineſs, health and many other local circumſtances and cauſes, will produce theſe. As ſuch variations are not agreeable to any general law of nature, they are neither evidences of, or objections to ſuch laws; but derive their origin from local and particular cauſes.—But it is impoſſible not to diſcern the general regularity, tendency, and effect of the laws of nature, reſpecting climate and color. The moſt intenſe black, is the general color of man in the hotteſt part of the globe. Where the heat is conſiderably abated, the black abates too, and the color becomes ſwarthy. To this ſucceeds the red or copper color of the eaſt and weſt Indians; ſuited to that part of Aſia, where the Indians have been long fixed and permanently ſettled. The next gradation is

* Buffon Nat. Hiſt. Vol. III.

brown, comprehending the olive, and dark yellow. A lighter shade, or a brow approaching nearer to white, distinguisheth a climate still more temperate. The whole terminates in the coldness, and in the whiteness of the European and northern nations; beyond which nature has not proceeded. And where a country is of great extent, as India, and China, the color of the same people is dark in the southern, and more fair in the northern parts. Whatever particular exceptions and deviations may be found, the general law of nature respecting color, is marked with as much regularity, uniformity, design, and order, as any other law of nature, which applies to the vegetable or animal world.

4. This operation and effect of climate must be extremely gradual and slow. Whatever those causes are which have served to form and fix the colors of men, they are causes which have been in operation, from the beginning of the creation of God. If there were any differences in the natural constitutions of men, so as to form what has been called different races, those differences must have been original; and therefore as ancient as those supposed races of men. If the effect has been produced by climate, this cause must have been operating upon nations, ever since their residence became fixed in any particular part of the earth. The same remark will apply to any other supposed cause. Be it what it may, upon every nation whose residence has been fixed, it must have been operating ever since their situation became established. With regard then to all those nations which have long resided in the same part of the globe, their colors must be viewed as the effect of causes, which have been in operation either from the beginning of the creation, or from the time when they began to reside in their present situations, or countries. What then ought to be expected, if any race of men whose color was already formed, should be removed to a country, where the tendency of climate was to reverse the former effects, and change the color which had been long fixed?—Could it be expected that the power of climate to change a color long formed and fixed, could be exerted in less time than it had required to produce and to establish it? Would it require less time to remove an established color, and to produce a new one, than it did to produce and fix the first? So far as we can derive any information from the ordinary course of nature, we cannot conceive that the color of the negro, could be changed into that of the white man, in a less period of time, than it had taken, to produce and establish that color at first. It is much more probable, that a longer period of time would be necessary to eradicate the first, and produce the second, than was requisite to form the complexion at first. Those then that mean to inquire carefully into the operations and effects of nature, must put on the patience of the antiquarian, and learn to compute time with the astronomers. The impatience of many leads them to expect that climate should undo that in three or four generations, which nature has been constantly at work to effect, from her first origin until now.

I will venture to propose a conjectural estimation, not because I think it approaches very near to certainty or decision, but because I cannot find any thing upon the subject, that has a greater appearance of probability. The most powerful of all the causes, which have been found to change the complexion of man, is that of mixture by marriage. In the negro color, this requires five generations, and five divisions, before the African blackness is lost in the European whiteness: In the less dark complexion of the Indian, it requires three generations, and three divisions, to produce the same effect. The time of one of these generations may be estimated at about twenty five years. The time then which nature requires to effect the change of color from this cause, would be one hundred and twenty five

years, for the negro. A thirty ſecond part of the whole color, upon this ſuppoſition is done away by ſome other cauſe, ſay that of climate. If the whole effect had been produced by climate, and in this proportion, the time neceſſary to have completed the effect would have been four thouſand years. By the ſame method of conjectural eſtimation, the time neceſſary to reduce the Indian to the European color, would be ſix hundred years. The difficulty and uncertainty attending this method of forming an eſtimate, is not that it can give the period of time too long, but that it aſſumes what cannot be aſcertained by obſervation. It is not, and probably cannot be made certain by obſervation, that a thirty ſecond part of the negro color is done away by climate, or that it is done away at all, when the negro complexion is ſuppoſed to be completely changed. It is not probable that if a thirty ſecond part of the dark color remained, it could be readily diſtinguiſhed by the eye. But uncertain as the data are, they are ſufficient to ſhow that the operation of climate, in any view in which the matter can be conſidered, is extremely gradual and ſlow.

5. This influence of climate, whatever it is, may be increaſed, or it may be retarded, by the operation of other cauſes. The color of the ſkin may be affected and changed by other cauſes, as well as by heat and cold. If there be any thing in the common method of living, in being conſtantly expoſed to the ſun and wind, in the uſe of paint and oil, or in habitual cleanlineſs or filthineſs, that tends to darken, or to render the complexion more fair; this, may operate either with or againſt the influence of climate, according as the nature and tendency of ſuch cuſtom or practice may be. And we ought not to aſcribe that to, or make that any objection to the influence of climate, which may be derived from other cauſes. Thus in Greenland, the influence of climate is in favor of a fair and white complexion; but in the conſtant application of greaſe, oil, and filthineſs, to the human body, there is another and a more powerful cauſe to effect its color, than climate; and which, acting in conſtant oppoſition to it, gives to the countenance a ſallow or dirty olive complexion. Such cauſes may act with a force and power, equal or ſuperior to that of climate; but they are not equally permanent, univerſal, or invariable. There is no error more common, or more apt to deceive us in contemplating the natural hiſtory of man, than to aſcribe that to one cauſe, which is derived from or produced by the joint operation of many. Whatever tends to render the ſkin more or leſs tranſparent, will affect the color of the human ſpecies, as certainly as the climate in which they are placed.

Color and Climate of the Indians of America.—There is no ſubject in philoſophy ſo well underſtood, but that a number of queſtions and inquiries may be propoſed reſpecting it, which do not admit of a ſatisfactory or complete anſwer. And this will always remain to be the caſe, becauſe our knowledge of nature will never be equal or commenſurate to the ſubject. But there is one inquiry ariſing here, which demands our careful attention: How does the climate and the color of the Indians of America agree with this, or with any other ſuppoſed law of climate? The Indians were ſpread over the whole continent of America: They dwelt in every habitable climate from the equator to the pole: And they were of the ſame color in every place. In the greateſt heat under the equator, and in the ſevereſt climates of Canada and Hudſon's bay, they were of the ſame browniſh red.* This appears to be the proper Indian color in

* It has been cuſtomary to write in this language, but we are far from being certain that it is either accurate, or proper. It has been taken for granted, but it has never been examined, whether the Indian color is

every part and climate of America. Are the climates of America different from thoſe of the other continent? Or whence is it that the connexion which takes place between climates and color in the other parts of the globe, is not to be found among the Indians? This curious phenomenon has occaſioned much inquiry and ſpeculation: Can the cauſes of it be found, in the obſervations which have been already mentioned?

1. The Indian color is very evidently the mixture of black and red. The color, which an intenſe heat produces upon all bodies to which it is applied, is *black*: And it is as natural to expect it ſhould have this effect upon the human body, as upon any other bodies. The color which is produced upon the human body, by living much in the open air, expoſed to the influence of the ſun and wind, is *red*. The white men who live in ſuch a ſituation, always contract this color. That part of their bodies, which is expoſed to the influence of the ſun and wind, becomes of a reddiſh color: or as it is commonly expreſſed, they become tanned, or ſun burnt: that is, they acquire a color formed by a mixture of red and white. This influence of the wind and ſun, in producing the red complexion, is found to be much the ſame in ſummer and winter: The white man is nearly as much and as ſoon tanned, in the winter as in the ſummer. It ſeems therefore that the production of this red color, does not depend upon climate, heat, or cold, but upon *habit*: the habit of living in the open air, and having the body expoſed to the conſtant influence of the ſun and wind. The Indian color then ſeems to have been formed by the mixture of two different colors, black and red; and to have been derived from two powerful cauſes, *climate* and *habit*: Cauſes diſtinct from one another, and the latter producing nearly the ſame effect in every climate.

2. This color of the Indians was probably completely formed, when they firſt came into America. They were of the ſame color as the Indians, and ſouthern Tartars in Aſia; and appear to have been deſcended from them. Their color therefore was completely formed and fixed, before they came into America. This color ſeems to have been derived from the warm climate of Aſia; and from the habit of living conſtantly expoſed to the ſun, and to the open air. The color thus formed and fixed, they would naturally convey to their offſpring. And as there were no other people with whom they could have any intercourſe, there could be no change or alteration of color, produced by a mixture of parents of different complexions. Their color therefore muſt have been ſettled, and uniform: And the whole effect of population muſt have been to ſpread, propagate, and preſerve it. The effect of climate then upon the Indian in America, would not be to produce and form his color; but either to preſerve, or to change it.

the ſame in every part of America. An accurate and inquiſitive obſerver, M. de le Pinto, who commanded for ſeveral years at Matagroſſa, a Portugueſe ſettlement in the interior parts of Brazil, where the Indians are numerous, and not altered by their intercourſe with the Europeans, noted a difference in their complexions: "They are all of a copper color, with ſome diverſity of ſhade, not in proportion to their diſtance from the equator, but according to the degree of elevation of the territory which they inhabit. Thoſe who live in a high country are fairer than thoſe in the marſhy, low lands on the coaſt."—Robertſon's Hiſt. Amer. I. 460. On the northweſt part of the American continent, it has been found, that "the complexion of the Indians is lighter than that of the ſouthern Indians, and ſome of their women have roſy cheeks."—Morſe's Geog. I. 99. 105. Edit. 1793. Of the Indians of Paraguay we have this account: "They are generally of an olive complexion, ſome darker, others lighter, and ſome as white as the Spaniards."—Ibid. p. 81.

3. No part of the climate of America was ſufficiently hot, to change it into an intenſe black. It is only in the moſt intenſe heat of the hotteſt climate, that the extreme black of the negro is formed. The climate of America under the line falls far ſhort of this. "While the negro on the coaſt of Africa is ſcorched with unremitting heat, the inhabitant of Peru breathes an air equally mild and temperate, and is perpetually ſhaded under a canopy of grey clouds, which intercept the fierce beams of the ſun."* The climate in every part of the torrid zone in America, is much more mild and temperate than the ſame latitude in Africa or Aſia. In a country where the hotteſt climate is ſo moderate, it is not to be expected that the Indian color ſhould be changed into extreme black. No part of the climate was hot enough to produce this: And any ſmall variation in the Indian countenance, would not be readily or eaſily diſcerned.

4. The change of color moſt naturally to be expected would be of the contrary kind, not to black, but to white; at leaſt to a lighter ſhade than what took place under the equator. If there be any influence or tendency in extreme cold to produce a fair and white complexion, this might have been expected; for there are no colder climates upon the face of the earth, than thoſe of the northern parts of America. But whatever might be the influence of the climate to produce ſuch a complexion, the Indians made uſe of ſeveral certain and conſtant methods to prevent it. One, was their conſtant habit of living and wandering about in the woods, expoſed to the full force of the winds and ſun: Another, was their extreme and perpetual filth, and dirtineſs: A third, was their habitual uſe of greaſe and paint. It was their univerſal cuſtom to anoint and rub their bodies with the greaſe and oil of the bear, beaver, muſkrat, and other animals; and to mix the greaſe with different kinds of paints, and gums. This practice was probably deſigned to protect the body againſt the extreme variations of heat, cold, and moiſture, to which they were conſtantly expoſed. Nor could they have provided any better defence againſt heat, cold, rain, and inſects, than thus to cover their bodies with a glutinous kind of varniſh. And in doing this, they took a ſure and a certain method, to fix and preſerve their color from any approaches to a white, or to a fair complexion. When extreme dirtineſs was added to the greaſe, oil, and paint, neither climate or any other cauſe could produce a fair complexion, until theſe were removed and diſuſed. Thus in the Indian cuſtoms, and method of guarding the body againſt the effects of climate, the Indian himſelf was taking conſtant care that nothing ſhould change the color of his ſkin, or make it more tranſparent.

5. Where theſe cuſtoms have been diſuſed, the Indian color has been found to be changeable. It has never been decided whether the Indian color is exactly the ſame in every part of America. No accurate compariſons have ever been made between the color of the Indians in the hotteſt parts under the equator, and thoſe in the remote regions of Canada and Hudſon's bay. Their colors have never been compared to any accurate and known ſtandard; and ſmall variations in a dark complexion, would not be a matter of common obſervation. But whether the Indian color be the ſame in every part of America, or not, it is certainly more changeable, and not ſo deeply fixed, as that of the negro. Many families of the Indian tribes are to be found in ſeveral of our towns. Some of theſe are at Cape Cod, and Rhode Iſland: A conſiderable number of them, are at Natic, and Stockbridge, in Maſſachuſetts. Their habits and manners of life are different from thoſe of the Indians, who reſide in the foreſts. They live

* Robertſon's Hiſt. America, I, 253.

in houſes, have a fixed place of reſidence, and have much diſuſed the cuſtom of paints and oils; and their complexion differs much from that of the tribes who yet remain in their ancient and original ſtate. The reddiſh caſt is abated. The tawny aſpect appears more dull, pale, and clouded. The crimſon mixture has diſappeared, and they have approximated much nearer to the color of the hunter among the whites, than the tribes who retain their ancient cuſtoms and habits. This change of color in the Indians who have lived long among the whites, is apparent to common obſervation. And it is apparently derived from the change in their manners, cuſtoms, and habits. This change of the Indian complexion, clearly ſhows what has been the effect of cuſtom and habit.

6. In the northern parts of America, there are permanent phenomena, which will ſerve alſo to ſhow what has been the effect of climate. The Eſquimaux in the northern parts of America, are a people remarkably different from the Indians, which occupy the other parts of the continent. There is not much room to doubt, but that they were derived from the northweſt parts of Europe; are the ſame people with the Greenlanders, Laplanders, Zemblans, and Samojeds; and like them, were deſcended from the Tartars in the eaſt. Their deſcent then was probably from the ſame nation as the Indians. But while the Indian tribes have by cuſtom, preſerved their red complexion, the Eſquimaux have acquired a ſallow olive, or browniſh color; more inclining to the European whiteneſs, than to the browniſh red of the American. To what cauſe can we aſcribe the lighter color of this branch of the Tartar race, but to their more northerly and frozen ſituation? They have adopted the ſame cuſtoms and habits, as the Indians. They rub and anoint their bodies, with greaſe, the fat of the ſeal, and train oil; and are as filthy as the Indians. Not only ſo, but they drink the fat of the ſeal, and their train oil, and eſteem it the moſt pleaſant liquor. Can it be doubted what muſt be the effect upon their color? It operates againſt the influence of climate, in that part of the earth where climate operates moſt powerfully to produce a white complexion. The influence of the two cauſes is divided, but the balance is in favor of climate, and the European complexion. Thus in two very extenſive and numerous kinds of men, derived from the ſame nation, climate, cuſtom, and habit, in one part of America, have produced or preſerved the dark crimſon of the Indian; but in the moſt northerly and frozen parts of the continent, the ſame cauſes have eſtabliſhed the ſallow olive color of the Eſquimaux, more reſembling the European whiteneſs, than the Indian red. Upon a careful attention then, to the colors and cuſtoms of the original inhabitants of America, the phenomena ſeem to confirm the general connection which has taken place between climate and color, in the various parts of the other hemiſphere.

This part of the natural hiſtory of man, ſeems to be but very imperfectly underſtood. The great difficulty that attends it, is the want of ancient and accurate accounts. It does indeed ſeem to be pretty well determined, that the color of the white man is eaſily, and ſoon changed, to a dark complexion: And that the color of the Indian is changeable, into a lighter complexion. But no relations which I have ſeen afford the ſame information, reſpecting the changes of the African black. Nor can I find any phenomena or accounts which ſerve to aſcertain the matter, and put it out of all doubt, whether there has been any change in the color of the negroes, which have been brought into any part of America. Nor is it certain that any ſuch apparent alteration of the negro color, ought upon any hypotheſis to have been expected, in the courſe of four or five generations. And yet, until ſome of theſe facts ſhall be aſcertained, we can hardly expect that the laws of

nature which apply to this ſubject, will be underſtood. Impatient of the fatigue of inquiry, collecting and comparing phenomena, ſome philoſophers, with great precipitation, have pretended to decide it by ſyſtem. To ſolve all difficulties it has been declared by ſome, that there are different creations, and races of men: That the white man is one kind, the negro another, and the Indian a third, &c. The buſineſs of making ſyſtems for nature, has ſeldom anſwered any other purpoſe, than to diſcover the preſumption of thoſe, who have made them. It has proved ſo in this caſe. If there had been as many local creations as there are individuals, this would not afford us any information, or enable us to advance one ſtep, towards a ſolution of the problem reſpecting the colors of different men. Still the inquiries would remain, what is the ſeat of color in theſe different men? Why do the rays of light appear of ſuch different colors, upon the ſkins of the one, and the other? Why does one color appear moſt common in a hot, and another color prevail the moſt in a cold climate? And how is the change of color produced by marriage and mixture? Inſtead of amuſing ourſelves with theories that are attended with no evidence, and can be of no uſe, what is wanted in this ſubject, is careful and accurate obſervations. Theſe will indeed require a long courſe of time, and abilities very different from thoſe, which decide by metaphyſical diſputes and ſpeculations. But it is the only method, in which we have any reaſon to expect our knowledge of this ſubject will be promoted.

No. VI.

GARRANGULA'S SPEECH:

A ſpecimen of Indian policy, eloquence, and manners. CHAP. IX. P. 275.

IN the year 1684, De la Barre, governor of Canada, marched into the Indian country, with an army of ſeventeen hundred men. His object was to deſtroy the five nations. Sickneſs and famine waſted his army, and he wiſhed to conclude the campaign with a treaty of peace. To effect his purpoſe, he made a ſpeech to the Indians, in which he informed them that he came into their country, with no other view than to make peace; that his maſter was offended with their former conduct, but would forgive them, if they would obſerve the terms that he had preſcribed; but if they would not ſubmit to his preſcriptions, he had orders to declare war againſt them, to burn their caſtles, and put them all to death.

Garrangula, an Onondago Sachem, heard theſe threats with contempt. He knew the diſtreſſed ſtate of the French army, and that it was wholly out of their power to execute their deſigns. He walked five or ſix times round the circle, and then anſwered the French governor, who ſat in an elbow chair, ſurrounded by his officers, in the following manner.

"YONNONDIO,*

'I honor you, and the warriors that are with me likewiſe honor 'you. Your interpreter has finiſhed your ſpeech; I now begin mine. 'My words make haſte to reach your ears; hearken to them.

* *Yonnondio* was the name, by which the Indians always addreſſed the governor of Canada; *Corlear* was their phraſe, when ſpeaking to the governor of New York.

'Yonnondio, you muſt have believed, when you left Quebec, that the 'ſun had burnt up all the foreſts, which render our country inacceſſible to 'the French, or that the lakes had ſo far overflown the banks, that they 'had ſurrounded our caſtles, and that it was impoſſible for us to get out of 'them. Yes, Yonnondio, ſurely you muſt have dreamt ſo, and the cu-'rioſity of ſeeing ſo great a wonder, has brought you ſo far. Now you 'are undeceived, ſince that I and the warriors here preſent, are come to 'aſſure you, that the Senecas, Cayugas, Onondagas, Oneydoes, and Mo-'hawks, are yet alive. I thank you in their name, for bringing back into 'their country the calumet, which your predeceſſor received from their 'hands. It was happy for you, that you left under ground that murder-'ing hatchet that has been ſo often died in the blood of the French. Hear, 'Yonnondio, I do not ſleep, I have my eyes open, and the ſun, which en-'lightens me, diſcovers to me a great captain at the head of a company of 'ſoldiers, who ſpeaks as if he was dreaming. He ſays, that he only came 'to the lake to ſmoke on the great calumet with the Onondagas. But 'Garangula ſays, that he ſees the contrary, that it was to knock them on 'the head, if ſickneſs had not weakened the arms of the French.

'I ſee Yonnondio raving in a camp of ſick men, whoſe lives the great 'Spirit has ſaved, by inflicting this ſickneſs on them. Hear, Yonnondio, 'our women had their clubs, our children and old men had carried their 'bows and arrows into the heart of your camp, if our warriors had not 'diſarmed them, and kept them back, when your meſſenger, Ohguelſe, 'came to our caſtles. It is done, and I have ſaid it. Hear, Yonnondio, 'we plundered none of the French, but thoſe that carried guns, powder, 'and ball to the Twightwies and Chictaghicks, becauſe thoſe arms might 'have coſt us our lives. Herein we follow the example of the Jeſuits, 'who ſtave all the kegs of rum brought to our caſtles, leſt the drunken In-'dians ſhould knock them on the head. Our warriors have not beaver 'enough to pay for all thoſe arms, that they have taken, and our old men 'are not afraid of the war. This belt preſerves my words.

'We carried the Engliſh into our lakes, to trade there with the Utawa-'was and Quatoghies, as the Adirondacks brought the French to our caſ-'tles, to carry on a trade, which the Engliſh ſay is theirs. We are born 'free; we neither depend on Yonnondio nor Corlear.

'We may go where we pleaſe, and carry with us what we pleaſe; if 'your allies be your ſlaves, uſe them as ſuch, command them to receive 'no other but your people. This belt preſerves my words.

'We knocked the Twightwies and Chictaghicks on the head, becauſe 'they had cut down the trees of peace, which were the limits of our coun-'try. They have hunted beavers on our lands; they have acted contrary 'to the cuſtoms of all Indians; for they left none of the beavers alive, they 'killed both male and female. They brought the Sataras into the coun-'try, to take part with them, after they had concerted ill deſigns againſt 'us. We have done leſs than either the Engliſh or French, that have u-'ſurped the lands of ſo many Indian nations, and chaſed them from 'their own country. This belt preſerves my words.

'Hear, Yonnondio, what I ſay, is the voice of all the five nations; hear 'what they anſwer; open your ears to what they ſpeak. The Senecas, 'Cayugas, Onondagas, Oneydoes, and Mohawks, ſay that when they bu-'ried the hatchet at Cadaracqui, (in the preſence of your predeceſſor) in the 'middle of the fort; they planted the tree of peace in the ſame place, to 'be there carefully preſerved, that, in place of a retreat for ſoldiers, that 'fort might be a rendezvous for merchants; that in place of arms and a-'munition of war, beavers and merchandize ſhould only enter there.

'Hear, Yonnondio, take care for the future, that so great a number of 'soldiers as appear there, do not choke the tree of peace, planted in so 'small a fort. It will be a great loss, if, after it had so easily taken root, 'you should stop its growth, and prevent its covering your country and 'ours with its branches. I assure you, in the name of the five nations, 'that our warriors shall dance to the calumet of peace under its leaves, 'and shall remain quiet on their matts, and shall never dig up the hatchet, 'till their brother Yonnondio or Corlear shall either jointly or separately 'endeavor to attack the country, which the great Spirit has given to our 'ancestors. This belt preserves my words, and this other, the authority 'which the five nations have given me.

Garrangula then addressed himself to Monsieur La Main, the interpreter: 'Take courage,' said he, 'Onguesse, you have spirit, speak, explain my 'words, forget nothing, tell all your brethren and friends, say to Yonnon-'dio, your governor, by the mouth of Garrangula, who loves you, and 'desires you to accept of this present of beaver, and take part with me in 'my feast, to which I invite you. This present of beaver is sent to Yon-'nondio, on the part of the five nations."*

No. VII.

Monument of Lord Viscount Howe, in Westminster Abbey. CHAP. XII. P. 406.

THIS monument contains a figure of the genius of the province of Massachusetts Bay, in a mournful posture, lamenting the fall of this hero, and the family arms ornamented with military trophies. Beneath is the following inscription, in large characters:

The Province of Massachusetts Bay, in New England, by an order of the Great and General Court, bearing date, February 1st, 1759, caused this monument to be erected to the memory of George, Lord Viscount Howe, Brigadier General of his Majesty's forces in North America, who was slain July 6th, 1758, on his march to Ticonderoga, in the 34th year of his age; in testimony of the sense they had of his services and military virtues, and of the affection their officers and soldiers bore to his command.

He lived respected and beloved; the public regretted his loss; to his family it is irreparable.

Westminster Abbey and its Curiosities, p. 95.

No. VIII.

Monument erected to the memory of General Wolfe, in Westminster Abbey. CHAP. XIII. P. 423.

THE subject is the tragic story of the General's death in the very moment of victory. He is represented in the last agonies of expiring heroism, with his hand closing the wound which the ball that killed him

* Smith's Hist. New York; first edition, p. 50.

had made in his breaſt, and falling into the arms of a grenadier, who catches and endeavours to ſupport him on his haunches, while with one hand he holds his feeble arm, and with the other points to glory, in the form of an angel in the clouds, holding forth a wreath ready to crown him. On the pyramid, in relief, is the faithful Highland ſergeant who attended him, in whoſe countenance the *big ſorrow* at the mournful ſight of his dying maſter is ſo powerfully and pathetically expreſſed, that the moſt inſenſible human being cannot look upon him, without, in ſome ſort, ſharing in his grief.

This monument does equal honor to the artiſt who deſigned it, and the ſculptor by whom it was executed. Every part is maſterly. The lions that reſt upon the baſe, and the wolve's heads that ornament the flanks, are animated; but above all, the alt-relief that decorates the front, and repreſents the landing at Quebec, conveys ſuch a lively view of the horrid rocks and precipices which the ſoldiers had to climb, and the ſailors to ſurmount with the cannon, before they could approach to attack the enemy, that one cannot tell which moſt to admire, the bravery of the troops, who could conquer under ſuch difficulties, or the art of the ſculptor, who could make a repreſentation ſo ſtriking. The inſcription carries no marks of oſtentation, but ſimply records the facts in the following words:

To the memory of JAMES WOLFE, Major General and commander in chief of the Britiſh land forces on an expedition againſt Quebec; who, after ſurmounting, by ability and valor, all obſtacles of art and nature, was ſlain in the moment of victory, on the 13th of September, 1759:

The King and Parliament of Great Britain dedicate this monument.

Weſtminſter Abbey and its Curioſities, p. 57.

No. IX.

Inſcription on the tomb of the Marquis de Montcalm, at Quebec.

CHAP. XIII. P. 423.

Tranſlation of a letter from M. Bougainville, Member of the Academy of Sciences, to the Right Hon. William Pitt.

SIR,

THE honors paid during your miniſtry, to the memory of Mr. Wolfe, give me room to hope, that you will not diſapprove of the grateful efforts made by the French troops to perpetuate the memory of the Marquis de Montcalm. The corpſe of that General, who was honored with the regret of your nation is buried at Quebec. I have the honor to ſend you an epitaph, which the Academy of Inſcriptions and Belles Lettres have wrote for him; and I would beg the favor of you, ſir, to read it over, and if there be nothing improper in it, to procure me a permiſſion to ſend it to Quebec, engraved in marble, to be put over the Marquis de Montcalm's tomb. If this permiſſion ſhould be granted, may I preſume, ſir, to intreat the honor of a line to acquaint me with it, and at the ſame time to ſend me a paſſport, that the engraved marble may be received on board an Engliſh veſſel, and that Mr. Murray, Governor of Quebec, may give leave to have it put up in the Urſuline Church. I aſk pardon, ſir, for taking off your attention, even for a moment, from your important concerns; but to endeavor to immortalize great men and illuſtrious citizens, is to do honor to you. I am &c. BOUGAINVILLE.

Paris, March 25th, 1761.

MR. PITT'S ANSWER.

SIR,

IT is a real ſatisfaction to me to ſend you the King's conſent on ſuch an intereſting ſubject, as the very handſome epitaph drawn by the Academy of Inſcriptions at Paris, for the Marquis de Montcalm, which is deſired to be ſent to Quebec, engraved on marble, to be ſet up on the tomb of that illuſtrious warrior. The noble ſentiments expreſſed in the deſire to pay this tribute to the memory of their General, by the French troops who ſerved in Canada, and who ſaw him fall at their head, in a manner worthy of him, and worthy of them, cannot be too much applauded.

I ſhall take pleaſure, ſir, in facilitating a deſign ſo full of reſpect to the deceaſed; and as ſoon as I am informed of the meaſures taken for embarking the marble, I ſhall immediately grant the paſſport you deſire, and ſend orders to the Governor of Canada for its reception.

As to the reſt, be aſſured, ſir, that I have a juſt ſenſe of the obliging things ſaid to me in the letter with which you honored me, and that I think it a ſingular happineſs to have an opportunity to expreſs thoſe ſentiments of diſtinguiſhed eſteem and conſideration with which I have the honor to be, &c. W. PITT.

April 10, 1761.

THE INSCRIPTION IS AS FOLLOWS.

HIC JACET
Utroque in orbe æternum victurus,
LUDOVICUS JOSEPHUS DE MONTCALM GOZON,
Marchio Sancti Verani Baro Gabriaci
Ordinis Sancti Ludovici commendator.
Legatus Generalis exercituum Gallicorum;
Egregius et cives et miles;
Nullius rei appetens, præterquam veræ laudis,
Ingenio felici et litteris exculto
Omnes militiæ gradus per continua decora emenſus,
Omnium belli artium, temporum, diſcriminum gnarus.
In Italia, in Bohemia, in Germania dux induſtrius.
Mandata ſibi ita ſemper gerens ut majoribus par haberetur.
Jam clarus periculis
Ad tutandam Canadenſem provinciam miſſus,
Parva militum manu hoſtium copias non ſemel repulit.
Propugnacula cepit viris armiſque inſtructiſſima,
Algoris, inediæ, vigilarum, laboris patiens,
Suis unice proſpiciens, immemor ſui;
Hoſtis acer, victor manſuetus.
Fortunam virtute, virium inopiam peritia et celeritate compenſavit.
Imminens coloniæ ſarum et conſilio et manu per quadriennium ſuſtinuit,
Tandem ingentem exercitum duce ſtrenuo et audaci
Claſſemque omni bellorum moli gravem,
Multiplici prudentia diu ludificatus,
Vi pertractus ad dimicandum
In prima acie, in primo conflictu vulneratus,
Religione, quam ſemper coluerat innitens,
Magno ſuorum deſiderio, nec ſine hoſtium mœrore extinctus eſt
Die XIV Septembr. A. D. MDCCLIX. ætatis XLVIII.
Mortales optimi ducis exuvias in excavata humo,
Quam globus bellicus decidens diſſilienſque defoderat,
Galli lugentes depoſuerunt,
Et generoſæ hoſtium fidei commendarunt.

TRANSLATION.

HERE LIETH,
In either hemiſphere to live forever,
LEWIS JOSEPH DE MONTCALM GOZON,
Marquis of St. Veran, Baron of Gabriac,
Commendatory of the Order of St. Lewis,
Lieutenant General of the French Army,
Not leſs an excellent citizen than ſoldier;
Who knew no deſire but that of true glory;
Happy in a natural genius improved by literature;
Having gone through the ſeveral ſteps of military honors,
With uninterrupted luſtre,
Skilled in all the arts of War,
The juncture of times, and the criſis of dangers,
In Italy, in Bohemia, in Germany,
An indefatigable General,
He ſo diſcharged his important truſts
That he ſeemed always equal to ſtill greater,
At length grown bright with perils,
Sent to ſecure the Province of Canada,
With a handful of men
He more than once repulſed the enemy's forces,
And made himſelf maſter of their Forts
Replete with Troops and Ammunition.
Inured to cold, hunger, watchings and labors,
Unmindful of himſelf,
He had no ſenſation but for his ſoldiers,
An enemy with the fierceſt impetuoſity;
A victor with the tendereſt humanity,
Adverſe fortune he compenſated with valor,
The want of ſtrength with ſkill and activity;
And, with his counſel and ſupport,
For four years protracted the impending fate of the colony.
Having with various artifices
Long baffled a great army,
Headed by an expert and intrepid commander,
And a Fleet furniſhed with all warlike ſtores,
Compelled at length to an engagement,
He fell, in the firſt rank, in the firſt onſet,
Warm with thoſe hopes of Religion which he had always cheriſhed,
To the inexpreſſible loſs of his own army,
And not without the regret of the enemy's,
XIV. September, A D MDCCLIX. of his age XLVIII.
His weeping countrymen
Depoſited the remains of their excellent General
In a Grave
Which a fallen Bomb in burſting had excavated for him,
Recommending them to the generous faith of their enemies.

Pitt's Life, Vol. II. p. 321.

END OF THE FIRST VOLUME.

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IN a part of the impreſſion, the following errors were not corrected.

Page	*line*	*for*	*read*
101	13	mildneſs	wildneſs.
137	13	Cendon	Clarendon.
422	7	Sillary	Sillery.
427	4	Burlemagne	Burlemaque.
	15	Burlemagne	Burlemaque.
433	30	radien	radeau.
435	27	Venangs	Venango.
436	9	Farguhar	Farquhar.
491	18	new	knew.

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